

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF GEORGIA
GAINESVILLE DIVISION

SANTANA BRYSON and JOSHUA)
BRYSON, as Administrators of)
the Estate of C.Z.B., and)
as surviving parents of)
C.Z.B., a deceased minor,)
)
)
Plaintiffs,)
) CIVIL ACTION FILE
vs.)
)
) NO. 2:22-cv-17-RWS
ROUGH COUNTRY, LLC,)
)
)
Defendant.)

VIDEOTAPED DEPOSITION OF

WESLEY D. GRIMES

May 9, 2024

10:17 a.m.

Weinberg Wheeler Hudgins Gunn & Dial
3344 Peachtree Road, NE
Suite 2400

Atlanta, Georgia

Reported by: Marsi Koehl, CCR-B-2424

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25 (Pursuant to OCGA 15-14-37 (a) and (b) a
written disclosure statement was submitted
by the court reporter to all counsel present
at the deposition and is attached hereto.)

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P R O C E E D I N G

THE VIDEOGRAPHER: Today's date is May 9th, 2024, and the time is 10:17 a.m.

This will be the videotaped deposition
of Wesley Grimes.

Will counsel present please identify themselves for the record starting with the taking attorney.

MR. GRIMES: What time did you say it was?

THE VIDEOGRAPHER: 10:17 a.m.

MR. GRIMES: Oh, okay. I'm sorry. I apologize.

MR. MASHMAN: Devin Mashman and Tedra Cannella representing the plaintiffs.

MR. HILL: Rick Hill representing Rough Country.

THE VIDEOGRAPHER: Thank you. Would the court reporter please swear in the witness.

WESLEY D. GRIMES,

EXAMINATION

R. MASHMAN:

Q. Good morning, Mr. Grimes.

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1 A. Good morning, sir.

2 Q. We met a moment ago.

3 A. Yes, sir.

4 Q. I'm Devin Mashman. I represent the
5 plaintiffs in this case.

6 I know you've -- this isn't the first time
7 you've had your deposition taken, so I'm not going to
8 belabor the rules. If you ever don't understand a
9 question that ask, please just ask me to clarify it.
10 I'll do my best to rephrase it so it makes sense.

11 And if you ever need to take a break, please
12 let me know. And as long as there's not a question
13 pending, we can -- we can take some time.

14 Fair enough?

15 A. Yes, sir.

16 MR. MASHMAN: This is the deposition of
17 Wesley Grimes taken pursuant to agreement
18 and Notice for all purposes permitted by the
19 Federal Rules of Civil Procedure, including
20 for use at trial.

21 BY MR. MASHMAN:

22 Q. Can you please state your full name.

23 A. Wesley Dean Grimes.

24 Q. And what is your current address?

25 A. The office is 2820 North Norwalk, Suite 123,

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1 Mesa, Arizona 85215.

2 Q. Do you agree that Mr. Elliott's lifted F-250
3 struck the Bryson's family Ford Escape above the
4 Escape's rear bumper?

5 MR. HILL: Object to the form but go
6 ahead.

7 THE WITNESS: There was contact above
8 the rear bumper. My concern about the
9 question is that I think there was also
10 contact on the bumper.

11 But there was certainly contact above
12 the bumper, yes.

13 BY MR. MASHMAN:

14 Q. Do you agree that the F-250 overrode the
15 Escape's bumper?

16 A. It did.

17 Q. Do you agree that the F-250 intruded into
18 the Escape?

19 A. It did. Yes, sir.

20 Q. Do you agree that the F-250 intruded far
21 enough into the Escape to displace the second row
22 seat that Cohan was sitting in?

23 A. The -- and let's just be clear. When you
24 say the F-250, it's the front of the F-250 that
25 intrudes in.

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1 And the front of the F-250 intruded in. And
2 with the cargo that was between the tailgate and the
3 back of the rear seat, it did displace the rear seat
4 forward.

5 Q. So the amount of intrusion from the F-250
6 into the Escape was enough to displace the second row
7 seat that Cohan was sitting in?

8 A. It was. Yes.

9 Q. And it was enough to push Cohan's car seat
10 forward while he was sitting in it?

11 A. Yes. As the seat back was -- was displaced
12 forward, the car seat would have been displaced as
13 well.

14 MR. MASHMAN: Okay. I'm going to hand
15 you Plaintiff's Exhibit 50, which is a copy
16 of the CV that you attached to your report.

17 (Plaintiff's Exhibit 50 was marked for
18 identification.)

19 MR. MASHMAN: Rick, I have a copy for
20 you.

21 MR. HILL: Thanks.

22 BY MR. MASHMAN:

23 Q. Is this your current CV?

24 A. No. There are a couple of changes. I
25 brought a more current one.

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1 Q. Okay. So I'm going to pass you an exhibit
2 sticker -- if you can hand me the more current
3 version.

4 And this current version wasn't a part of
5 your file materials, right?

6 A. That is correct.

7 Q. Okay.

8 A. And I actually have a couple of copies.

9 MR. MASHMAN: Okay. I appreciate that.

10 Thank you.

11 And I'll mark the most current version
12 as Plaintiff's Exhibit 90.

13 THE WITNESS: For Mr. Hill, as well.

14 (Plaintiff's Exhibit 90 was marked for
15 identification.)

16 MR. MASHMAN: And I'll hand this back to
17 you.

18 BY MR. MASHMAN:

19 Q. So what updates have been made to the more
20 current version of your CV since the one that you
21 attached to your report?

22 A. There were -- there was a presentation, I
23 think, or two and a class. Let me get to that point.

24 Q. When you get there, can you let me know what
25 page you're on?

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1 A. Yes. Yeah, absolutely.

2 On page 4, just above "Publications and
3 Presentations," so you're at the end of
4 "Presentations, Other Activities, Awards."

5 In April, I think, we -- I was part of a
6 presentation made at a NAPARS conference in Oklahoma
7 City about analyzing HVEDR data.

8 Q. And that's the last bullet in that section?

9 A. On the new one, yes, sir, it is.

10 Q. And are you relying at all on the materials
11 you used in that presentation for your opinions in
12 this case?

13 A. No.

14 Q. You mentioned there might be some new
15 publications or presentations?

16 A. The publication is there, so -- and then --
17 oh, then on the very last page, there are two
18 bullets. One is attending the NAPARS -- that same
19 NAPARS symposium I attended other lectures -- or
20 other presentations that other people made.

21 And then also I attended an SAE class a few
22 weeks ago about applying EDR data to traffic crash
23 reconstruction, Rick Ruth's class. Anybody in the
24 industry knows that class.

25 Q. Are you relying on either of those

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1 attendances for either of your --

2 A. Rick Ruth's class, the SAE class deals
3 specifically with the kind of data that was extracted
4 from the Ford. There was nothing new that I would
5 say applies specifically to this case because this
6 EDR is older. I rely on the information of that
7 class, but I've had that class several times, so...

8 Q. Okay, understood.

9 And when was this CV in Plaintiff's
10 Exhibit 90 last updated?

11 A. On the bottom, you see the date, bottom
12 left: April 26th.

13 Q. 26th. And does this CV include all your
14 professional activities and experience that are
15 relevant to your testimony in this case?

16 A. I think so. I try to keep it updated.

17 Q. You currently work at Mecanica Scientific
18 Services, right?

19 A. Yes, sir.

20 Q. What is Mecanica?

21 A. A company that is primarily based out of
22 California that does accident reconstruction, heavy
23 truck download, download analysis, HVEDR -- heavy
24 vehicle event data recorders.

25 We do some testing. We do analysis for

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1 different types of things of -- a lot of heavy truck
2 crash analysis and data retrieval and analysis and
3 accident reconstruction.

4 Q. And you mentioned the phrase "heavy truck."

5 How do you define a heavy truck crash?

6 A. Well, a crash involving a heavy truck.

7 Q. What --

8 A. Like a tractor-trailer, a tractor
9 semitrailer, commercial heavy truck: A Freightliner,
10 a Peterbilt.

11 Q. So you're talking about something like an
12 18-wheeler where the primary purpose of it is to
13 transport commercial property --

14 A. Yes, sir.

15 Q. -- as opposed to this case, an F-250, the
16 primary purpose is to transport people, right --

17 A. That's a fair breakdown. Yes, sir.

18 THE REPORTER: If I can remind you-all
19 to speak one at a time. Thank you.

20 (Discussion ensued off the record.)

21 BY MR. MASHMAN:

22 Q. What is your current title at Mecanica
23 Scientific Services?

24 A. I think I'm listed as Director of Forensic
25 Services.

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1 Q. What does it mean to say that you're the
2 "Director of Forensic Services"?

3 A. Not a lot, really. It means that I have a
4 role in the forensic side of the business where
5 there's testing or there's data analysis or accident
6 reconstruction, inspections, documentation of crashes
7 for the forensic side of things.

8 Q. What are your responsibilities as Director
9 of Forensic Services?

10 A. To do accident reconstruction and to do
11 testing and analysis of testing, downloads, analysis
12 of downloads and so assist others as they need it.

13 Q. Are those -- those roles that you mentioned
14 accident reconstruction, downloads, testing is that
15 primarily done with respect to litigation or outside
16 the context of litigation?

17 A. Most of it is either in litigation or in
18 anticipation of litigation. There's a lot of
19 casework that I do that there -- what we call fast
20 response where I'm there within hours.

21 And there's not a side yet, so there's no
22 litigation. But it is anticipated -- in anticipation
23 of litigation. Sometimes the litigation comes;
24 sometimes it doesn't.

25 Q. And when you say it's in anticipation of

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1 litigation, who typically is calling you to let you
2 know to go to this site and perform a preliminary
3 reconstruction?

4 A. Typically trucking companies or insurance
5 companies looking to get things documented, attorneys
6 working for those -- those entities looking to get
7 things documented before evidence dissipates.

8 Q. And so a trucking company or insurance
9 company would say, Hey, there's been a crash, we need
10 you to come out to the site, perform a preliminary
11 analysis of it because we anticipate this might
12 become a litigation issue later?

13 A. Yeah. And, you know, in reality it's more
14 the attorneys that are calling me. I think 30 years
15 ago sometimes it would be the trucking company or --
16 or even a -- a police agency that maybe knew I had
17 some specialized equipment or something like that.

18 You know, but nowadays, the last 10, 15
19 years it's really more attorneys or attorney offices
20 making that phone call.

21 Q. And about what percentage of your time do
22 you spend working on matters either in litigation or
23 in anticipation of litigation?

24 A. I don't know. It's not something I keep
25 track of. The majority of it.

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1 Q. Would you say it's a substantial majority?

2 A. What do you mean by "substantial"? It's the
3 majority. There's no question it's the majority.

4 Q. Where is Mecanica's headquarters?

5 A. Their main office is in Oxnard, California,
6 and then we're the Arizona office there in Mesa.

7 Q. Does Mecanica have its own building?

8 A. They -- yeah, I mean they have a building.
9 I don't know if they own it or lease it or rent it.
10 I don't know in California and then the same thing in
11 Arizona. They -- I mean it is -- they are the only
12 ones in the building.

13 Q. Okay. How many offices does Mecanica have?

14 A. They have some type of facility in Mexico --
15 I've never been to it -- where they do -- they do
16 some work with Mexican government and things. I'm
17 not involved in that at this point.

18 They have an office in San Diego and in
19 Oxnard and -- it's not in Sacramento. I think it's
20 in Fresno. And then I don't think it's in Portland,
21 but it's in one of the suburbs of Portland and Mesa,
22 Arizona.

23 And then they have someone that works
24 remotely. I don't know if they would consider it an
25 office. I think they are around Boise. I don't know

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1 if they would consider that an office. I don't think
2 they would. I don't know for sure.

3 Q. So not counting the person that works
4 remotely, is that six offices?

5 A. Yeah, if that's number. I wasn't counting.
6 I was listing them.

7 Q. It was my attempt to take down -- does that
8 sound about right to you?

9 A. It does. Yes, sir.

10 Q. How many employees does Mecanica have?

11 A. I don't know. Thirty? Thirty-five? Forty?

12 Q. Of those, how many testify in court as
13 expert witnesses?

14 A. I don't know about the other offices. In
15 Arizona, five -- five -- five of us, I guess. And in
16 California and the other parts, I know most of the
17 employees out there, so I'm going to -- I'm going to
18 guess somewhere between five and 10. But, again, I
19 don't -- I don't know really know. I don't keep
20 track of that.

21 Q. Do you have an ownership interest in --

22 A. No.

23 Q. -- Mecanica?

24 How are you compensated? Is it just a
25 straight salary or are there bonuses?

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1 A. It's a salary.

2 Q. So you don't get bonuses at the end of the
3 year?

4 A. No. I think there's like a bonus program or
5 something, but I -- I don't -- I have never seen one.

6 Q. What is Mecanica's revenue per year?

7 A. I don't know.

8 Q. What is Mecanica's net profit per year?

9 A. I don't know.

10 MR. HILL: I'm not waiving any
11 objections the company might want to make to
12 those questions. He answered it.

13 BY MR. MASHMAN:

14 Q. Has Mecanica to your knowledge been retained
15 by any auto makers since you've worked there?

16 A. I don't know. I hear people talking about
17 cases with different manufacturers and things, but
18 there's nothing I'm involved with that's with a
19 manufacturer.

20 Q. Other than this case, has Mecanica done any
21 work for automotive component manufacturers that you
22 know of?

23 A. I'm sure they have.

24 Oh, you know what? Let me correct
25 something. I know that two of the guys in the

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1 Arizona office do work for U-Haul and I think they
2 could be considered -- I know they get incomplete
3 vehicles and then add their equipment. So if you're
4 counting U-Haul as a manufacturer, then they are
5 involved in those cases.

6 Component manufacturers and stuff, I'm sure
7 that they are. I -- it's not something that I'm
8 involved in.

9 Q. Aside from this case, has Mecanica done any
10 work for lift kit manufacturers since you've worked
11 there?

12 A. Not that I know of. This is the only case
13 I'm aware of.

14 Q. Before joining Mecanica, you worked at
15 Collision Engineering Associates, right?

16 A. Yes, sir.

17 Q. What was your title there?

18 A. I was the Owner/President of the
19 corporation.

20 Q. What percentage of ownership did you have in
21 Collision Engineering Associates?

22 A. My wife and I owned the company.

23 Q. And did -- I'm sorry.

24 A. Is your wife Ann Grimes?

25 A. She is.

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1 Q. And did you and Mrs. Grimes share in
2 Collision Engineering Associates' profits?

3 A. I guess I'm not sure what you're asking. I
4 mean, we owned the company and we received a salary.

5 Q. As the owners, would you be compensated more
6 if the company does better, less if the company does
7 worse?

8 A. I suppose so. I mean, we -- we missed
9 paychecks if -- if money didn't come in and we got
10 paychecks if money came in so -- it's a small
11 business.

12 Q. How many -- that was going to be my next
13 question. How many employees did you have?

14 A. There -- when we merged in with Mecanica
15 there were four employees.

16 Q. And that merger in with Mecanica happened in
17 February of 2022, right?

18 A. That's correct.

19 Q. And why did you merge in with Mecanica?

20 A. Several reasons. One is I wanted to
21 facilitate a way out of the business. I've been
22 doing it a long time. And it was clear to me that I
23 would have trouble slowing down if I didn't have more
24 of a support group and Mecanica offered that.

25 I also saw that they had some capabilities

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1 that I would like to have access to. And I thought
2 that we brought in capabilities for them. And so it
3 was a good fit.

4 I had known the two owners John Grindey and
5 John Steiner for a long, long time and I thought we
6 would work well together.

7 You know, part of it also was I had a really
8 dear friend that was in the business that passed away
9 from Covid and this was all right at the tail end of
10 Covid. And I'm like, you know, I'm not immune here
11 and I need to -- I need to have more security for the
12 employees of Collision Engineering. And I wanted to
13 make sure that they were -- that they had security if
14 something happened to me.

15 Q. And when you refer to wanting a way to
16 facilitate slowing down, are you referring to as
17 going towards retirement or going towards some
18 other -- like -- scratch -- strike all of that.

19 What do you mean when you say you wanted to
20 slow down and that that was part of the motivation?

21 A. You know, a lot of it is trying to move
22 towards retirement and not work the hours that I
23 worked, not travel as much as I traveled and, you
24 know, be able to focus more on some of the research
25 that I enjoy doing, having the time to do those types

Page 22

1 of things.

2 Q. And when you were at Collision Engineering
3 Associates, did you work as a testifying expert
4 witness?

5 A. Yes.

6 Q. And do you agree that most of your work at
7 Collision Engineering Associates was also for
8 litigation or in anticipation of litigation?

9 A. The majority of it was. Yes.

10 Q. And you were at Collision Engineering
11 Associates from 1994 until 2022, right?

12 A. Yes.

13 What is that? Twenty-eight years? Yeah.

14 Q. Were you an owner that entire time?

15 A. Yes.

16 Q. Before Collision Engineering Associates you
17 worked at Cromack Engineering Associates; is that
18 right?

19 A. Yes.

20 Q. What type of work did you do there?

21 A. Same type of work. He was, again, a small
22 company that dealt with accident reconstruction. I
23 did more heavy trucks than anyone else there. Bob
24 did a lot of product work for different automotive
25 manufacturers. And then he was moving towards

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1 retirement and so I left.

2 Q. When you say automotive work for component
3 manufacturers, that refers to working as a testifying
4 expert in a company that's -- for a company that's
5 defending itself in a product lawsuit?

6 A. Well, he would be working for the attorneys
7 just as we are now for -- yeah, for different vehicle
8 manufacturers.

9 Q. And it looks like there are two periods of
10 time where you worked at Cromack Engineering
11 Associates.

12 Can you walk me through when you were there
13 and --

14 A. Sure.

15 Q. -- the break?

16 A. Sure. After high school, I went to Brigham
17 Young University on football scholarship and after a
18 year decided football was not the way to pay for my
19 education because I wanted to still be able to walk.

20 And so I went to work for Bob. I was one of
21 or the first full-time employee he had. He had
22 started his company -- he had been at what at the
23 time was Dynamic Sciences as the testing director.
24 And he had left there and had a government contract
25 to look at airbags and other passive restraints.

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1 And so I came in and helped with that and we
2 did a lot of research for some arm of Congress. I --
3 what we -- what we did was look at a lot of research
4 testing done on passive restraints systems. This
5 would have been in '79-'80 time period.

6 And after a year or so, I -- my family -- I
7 was raised in a little airport in New Mexico. My
8 father was the airport manager in an FBO, a
9 fixed-based operation, so did air charter, rented
10 aircraft, car rentals, stuff like that, a little tiny
11 airport in New Mexico.

12 So after a year my father asked me if I
13 would come back and help with the family business.
14 So I left Cromack and went back and helped with
15 family business. It was going -- it was pretty clear
16 that my father and I were going to end up killing
17 each other if we continued to work together. So I
18 then went back to Arizona, went back into school and
19 went back to work for Bob Cromack.

20 Q. So that second stint starting in July 1981
21 lasted until 1993. That's about 13 years --

22 A. Yes, sir.

23 Q. -- at Cromack?

24 A. Yes, sir.

25 Q. And that was also primarily for litigation

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1 matters or in anticipation of litigation matters; is
2 that fair?

3 A. Certainly towards the end it was.

4 Initially, my role was a lot of the research on the
5 passive restraints systems. But the last 10-plus
6 years it was primarily crash reconstruction,
7 documentation, things like that.

8 Q. And your CV lists several memberships,
9 presentations and publications. We talked about some
10 of those earlier.

11 Are you relying on any of these in
12 particular for your expert opinion in this case?

13 A. Not specific presentations. One of the
14 things listed there is I have taught different
15 courses on HVE, which is a computer software. You're
16 probably familiar with it. It's HVE stands for human
17 vehicle environment.

18 I started out teaching basic classes for
19 that and have ended up teaching the advanced classes
20 with others, but I teach advanced classes in using
21 that software. There's not any specific class or
22 presentation that I'm relying on, but the fact that I
23 teach those classes, I'm pretty familiar with the
24 software.

25 Q. So you're teaching role related to HVE

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1 informs your knowledge base about it, but you're not
2 going to rely on any particular course you taught or
3 presentation you gave as the basis for your opinions
4 in this case?

5 A. I think that's fair. Yeah.

6 MR. MASHMAN: All right. I'm going to
7 hand you Plaintiff's Exhibit 51, which is
8 the testimony list.

9 (Plaintiff's Exhibit 51 was marked for
10 identification.)

11 (Discussion ensued off the record.)

12 BY MR. MASHMAN:

13 Q. And is this testimony list up to date?

14 A. I believe it is.

15 Q. Does this list include all the times you've
16 testified in a deposition or trial in the last
17 four years?

18 A. Yes. I think it actually goes past four
19 years. I'm not good at taking them off the list, so
20 yeah -- but, yeah.

21 Again, I have -- I have tried to maintain
22 this list and I think it's accurate.

23 Q. That was going to be my next question.

24 The list goes back from -- the first date I
25 see on there is January 2012 through the present

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1 time.

2 A. Yeah.

3 Q. Does this appear to capture all the times
4 that you've testified at trial or in a deposition in
5 the last 12 years?

6 A. I think it does. I'm not aware of any that
7 are not on here.

8 Q. Does this list cover all the times that
9 you've provided deposition or trial testimony in your
10 career?

11 A. No.

12 Q. What testimony -- strike that.

13 Is the only testimony that's not included on
14 this list, times that you testified prior to January
15 of 2012?

16 A. That's my goal. Yes.

17 I'm not -- all of them that I'm aware of are
18 before the 2012 date. You know, there's none that
19 are missing off of this list as far as I know.

20 Q. Do you maintain this list as part of your
21 role as a testifying expert?

22 A. I do. Yes.

23 Q. This list doesn't include times that you've
24 been retained to assess a case where deposition or
25 trial testimony wasn't given; is that fair?

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1 A. That's correct.

2 Q. Do you know how many times you've been
3 disclosed as an expert witness?

4 A. No.

5 Q. And what percentage of your cases result in
6 testimony?

7 A. Not many. I don't know of some percentage.
8 I testify, you know, a few times a year. And I do --
9 I don't know. It depends -- 35, 40, 45, 50 cases a
10 year, generally.

11 A lot of them are fast response, as I
12 explained earlier, where there's not a side and it
13 just never develops into a case. That's a lot of my
14 work. So I don't testify very often.

15 Q. In what percentage of cases are you retained
16 by attorneys representing defendants?

17 A. I don't know.

18 Q. Would you say it's the majority of the time?

19 A. It is. Yeah, it is.

20 Q. And of the times you've testified in the
21 last 12 years, it appears that your client
22 represented the defendants in all but three of those
23 cases; is that right?

24 A. That is correct.

25 Q. What was Bartley versus Blackwell about?

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1 A. Is that the one here in Georgia? Yeah.

2 That is a case where there's a -- there's a
3 box truck towing a large compressor like a
4 construction site compressor on a -- on a trailer and
5 that -- the trailer didn't have brakes.

6 And so someone else did the reconstruction.

7 I came in and did HVE case work where we analyzed the
8 effect of that trailer if it had brakes whenever the
9 driver lost control.

10 He loses control because he's got a tire
11 disablement and he loses control. So I ran HVE and
12 created simulations to duplicate the event as closely
13 as we could following the evidence and then made the
14 change to add brakes to the trailer and see how that
15 affected things.

16 And then later it -- it -- they -- they
17 looked at what the ton load was. And so I made
18 additional runs there to move the CG so that the ton
19 load was more appropriate and then ended up creating
20 those simulations and then testifying in trial.

21 Q. Did the attorney in Bartley represent an
22 individual plaintiff bringing a personal injury suit?

23 A. Well, the family that the gentleman was
24 killed.

25 Q. And was that -- who was that suit against?

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1 A. I don't know all the parties. I think that
2 a tire manufacturer was involved. At least when I
3 first got in the case I know people settled out of
4 things so I don't know everybody, but I think a tire
5 manufacturer was involved.

6 I think the company with the box truck was
7 involved. The company that manufactured the trailer
8 that had the compressor on it was involved. And the
9 driver of the box truck may have been. I don't -- I
10 don't know.

11 Q. What was the alleged defect in the Stewart
12 versus Ford Motor Company?

13 A. My recollection is that they were looking at
14 restraint systems on that. I did the reconstruction
15 and then they had somebody else look at the restrain
16 system.

17 A young lady was -- the vehicle went through
18 several collisions and ended up outside the vehicle
19 and was -- received fatal injuries. So I did the
20 reconstruction and then they had someone else look at
21 how the occupant would move and looking at restraint
22 systems.

23 Q. And what was the basic nature of Carlos
24 Rodriguez versus ProPetro Services?

25 A. I don't remember.

Page 31

1 Q. That case was back in 2012, right?

2 A. Yeah, Utah. It would have been some type of
3 crash analysis. I don't remember.

4 Q. Did any of the cases on this list involve
5 allegations related to a lift kit?

6 A. No, not that I recall.

7 Q. Have you ever testified that a safety defect
8 caused or contributed to the severity of a collision?

9 MR. HILL: Object to form but go ahead.

10 THE WITNESS: Not that I recall.

11 BY MR. MASHMAN:

12 Q. Have you ever testified that an auto product
13 was defective?

14 A. Not that I recall.

15 Q. Have you ever been retained by the lawyers
16 representing Rough Country in this case which would
17 be Rick Hill and Lindsay Ferguson?

18 A. I don't think so.

19 Q. How many cases have you worked on for the
20 law firm representing Rough Country, Weinberg
21 Wheeler?

22 A. I think this is the only one.

23 Q. Have you ever -- I think my earlier question
24 was only about testimony.

25 Have you ever been retained in a case

Page 32

1 involving allegations related to a lift kit?

2 A. Not that I recall. There may have been
3 cases where a vehicle had a lift kit, but it wasn't
4 part of anything I looked at.

5 Q. How many times have you been retained by an
6 attorney representing a vehicle manufacturer or
7 component manufacturer being sued for an alleged
8 defect?

9 A. This case and then there was one -- I'm
10 sorry.

11 THE WITNESS: I'm sorry. I gave you --
12 (Reporter retrieves exhibit for
13 witness.)

14 THE WITNESS: You're right. You're
15 right. He put his list away, so I
16 thought...

17 (Discussion ensued off the record.)

18 THE WITNESS: I think it was the
19 Cannaday versus Ford out of South Carolina.
20 I did the reconstruction and we did some
21 testing. It was a wheel manufacturer -- the
22 attorneys for a wheel manufacturer retained
23 me, again, to do simulations and we ended up
24 doing some testing.

25 And other than that, I can't think of

Page 33

1 any others.

2 (Plaintiff's Exhibit 53 was marked for
3 identification.)

4 BY MR. MASHMAN:

5 Q. I'm going to hand you Plaintiff's Exhibit
6 53.

7 A. I'm done with 51?

8 Q. Yes. I might even just put it down here.
9 We're not going to open it.

10 But this is an electronic version of your
11 file, which has been produced to us by the lawyers.

12 Is the file that you produced to Mr. Hill
13 the same as the paper materials that you have in
14 front of you today?

15 A. No.

16 Q. Is the only thing missing the items that
17 wouldn't be able to be printed such FARO scans, 3D
18 scans, alignment, that kind of thing?

19 A. Right. And then like my raw photos. I'm --
20 I'm a photo geek and so I shoot what they call raw
21 images. My images are 50 megabytes or 60 megabytes
22 each. So I produced the PDF of those. I didn't
23 produce the raw images.

24 So those would not be there. The point
25 clouds, obviously, we can't print those out.

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1 There's some Rhino, which is a CAD software.
2 It's similar to like AutoCAD. It's called Rhino 3D
3 or Rhinoceros 3D or something like that. There's a
4 file there that, again, you can't print that out.

5 Q. I want to make sure I understand.

6 So the raw photos, the Rhino, the AutoCAD,
7 all of that is on your electronic file but not in the
8 binders in front of you; is that fair?

9 A. That's correct. And the movies, right, the
10 movies, I think.

11 You know, I didn't produce the movies
12 because I knew you guys had the movies, the crash
13 test movies.

14 Q. Those aren't in either. Those aren't in the
15 electronic file or --

16 A. That is correct. I actually tried to keep
17 the electronic file small, but I know it's huge.

18 Q. Aside from the raw photos -- scratch that.

19 Aside from the raw photos, the Rhino the CAD
20 and the video from the crash test, are there any
21 materials that were excluded from either your
22 electronic file or your paper file in front of you?

23 A. Yes.

24 Q. What materials were those?

25 A. I have a folder that's marked with

Page 35

1 protective order that I -- I think I signed it or
2 John Grinney signed that we wouldn't disclose it, so
3 I didn't produce any of that.

4 Q. What's in that folder?

5 A. You know, I think it's mainly drawings and
6 things like that, that I, quite frankly, didn't rely
7 on. I opened it when we got it and looked through
8 it, but there was nothing that -- that I needed. But
9 it's marked as a protected --

10 Q. You said --

11 A. -- set of documents.

12 Q. I apologize. I didn't mean to interrupt
13 you.

14 You said it's mainly drawings. Is there
15 anything in it other than drawings?

16 A. There's PDFs. I know there were some
17 interrogatories and things like that. There's a lot
18 of just -- I think there's some legal proceedings --
19 legal pleadings and interrogatories. I don't know
20 the -- the proper words for them, but they were all
21 issued to me under a protective order, so I didn't
22 produce them. And, again, I haven't relied on them
23 at all.

24 Q. Are any of those materials in the folder
25 marked "protective order" not listed in the materials

Page 36

1 relied on list that you put in your report?

2 A. I think I heard like two noes or nots.

3 Can you ask it again?

4 Q. Do you have your report in front of you?

5 A. I do.

6 Q. Do you see the "items obtained and reviewed"
7 list starting on page 1?

8 A. Yes, sir.

9 Q. Are any of the materials in the folder
10 marked "protective order" that was not a part of your
11 introduced file not included on this items obtained
12 and reviewed list?

13 A. None of the items under the protective
14 folder are listed here.

15 Q. None of the items in the protective folder
16 are listed in your report?

17 A. That's -- that's -- I think that's correct.

18 Q. I'm going to create a blank place holder
19 exhibit. I'm going to label it Plaintiff's
20 Exhibit 92 and title it -- did you say the name of
21 the folder is "protective order"?

22 A. I don't know -- I don't recall the exact
23 name of it. But it's clear that it's protected
24 material or protective order materials or materials
25 under protective order or something. They are

Page 37

1 separated out and -- so I didn't -- didn't use them
2 at all and didn't produce them.

3 (Plaintiff's Exhibit 92 was marked for
4 identification.)

5 MR. MASHMAN: Okay. I'm going to hand
6 you a blank exhibit. It just says
7 "protective order." That would be just a
8 place holder for that folder.

9 BY MR. MASHMAN:

10 Q. And we're not going to -- scratch that.

11 Would you agree to provide Mr. Hill with a
12 list of the documents in that folder, so he can
13 produce it to the plaintiff?

14 A. Well, I did the protective order for him, so
15 if he -- I'll do whatever he directs me to do.

16 MS. CANNELLA: Do you guys agree to
17 that --

18 MR. HILL: I don't mind providing you a
19 list. It's obviously the discovery and
20 other things covered by the protective
21 order.

22 THE WITNESS: Yeah. I don't know
23 exactly what's in it. It was protected. I
24 looked at it. I didn't need it. I haven't
25 touched it since, so...

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1 BY MR. MASHMAN:

2 Q. Did you rely on anything in that folder to
3 form your opinions?

4 A. No. I did not rely upon anything in that
5 folder.

6 Q. Aside from that one folder, did you bring --
7 strike that.

8 Aside from that one folder, did you provide
9 your complete file for production?

10 A. I think I have. Yes.

11 MR. HILL: And the other items mentioned
12 earlier.

13 Is that what you -- is your question
14 meant to encompass and include the other
15 items mentioned earlier that he did not
16 bring or produce?

17 BY MR. MASHMAN:

18 Q. Well, the other items would be on
19 your electronic file, correct?

20 A. Except the raw photos were not and the crash
21 test video was not, those things that we talked about
22 just a few minutes ago.

23 Q. So aside from the raw photos and the crash
24 test video and the protected folder, was everything
25 in your electronic file?

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1 A. I think so. Yes.

2 MR. MASHMAN: I'm handing you
3 Plaintiff's Exhibit 52, which is a copy of
4 your Notice of Deposition.

5 (Plaintiff's Exhibit 52 was marked for
6 identification.)

7 BY MR. MASHMAN:

8 Q. Have you seen this?

9 A. I did. Yes.

10 Q. And your file didn't include any
11 communications.

12 Have you had any communications with anyone
13 about this case in a written format?

14 A. Yes. I had my office -- I typically don't
15 save E-mails but then Mr. Hill asked me to go back
16 and see. So I had my office go back and pull E-mails
17 of where materials were transmitted to me. And
18 that's that list that my office...

19 Q. And is this -- what you just handed me, is
20 this only a list of E-mails where materials were sent
21 to you?

22 A. Yes.

23 MR. HILL: Object to the form. It's not
24 a list.

25 THE WITNESS: Yes.

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1 BY MR. MASHMAN:

2 Q. And under Schedule A of documents on page 4
3 of your deposition Notice, item 3 asked for a copy of
4 all communications with anyone other than the
5 attorneys in this case whether written, electronic or
6 otherwise sent, received or viewed by you, which
7 communications related in any way to the facts of
8 this case.

9 Am I right that your search for
10 communications was limited to transmittals sending
11 you documents from the attorneys?

12 MR. HILL: Object to the form.

13 THE WITNESS: Yes. That's what I asked
14 my office to do, yes.

15 BY MR. MASHMAN:

16 Q. Did you ask your office to search for
17 internal communications between you and other people
18 at Mecanica discussing the case?

19 A. No because there aren't any.

20 Q. Did you ask your office to search for any
21 communications between you and other experts related
22 to the case?

23 A. No. There aren't any.

24 Q. How do you communicate internally with
25 members of Mecanica?

Page 41

1 A. Phone calls or Zoom calls.

2 Q. Do you ever use a messaging service to
3 coordinate travel, talk about the case, anything like
4 that?

5 A. Generally, it's a phone call.

6 Q. And then item 4 -- do you still have the
7 Notice in front of you?

8 A. I do.

9 Q. On page 4 --

10 A. Mm-hmm.

11 Q. -- item 4 lists a copy of communications
12 with lawyers in this case to the extent that they --
13 I'll paraphrase -- relate to compensation, identify
14 facts or data or identify assumptions.

15 Did you ask your office to find all
16 categories of the documents in item 4?

17 A. No. There aren't any where I've been asked
18 to make assumptions or anything like that.

19 Q. But you haven't asked your office to look --
20 (Overlapping speakers.)

21 THE WITNESS: I have not, no.

22 THE REPORTER: I'm sorry. What was your
23 answer?

24 THE WITNESS: I have not.

25 THE REPORTER: Thank you.

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1 BY MR. MASHMAN:

2 Q. Are you relying on anything for your
3 opinions in this case that are not a part of your
4 file?

5 MR. HILL: Object to form. Go ahead.

6 THE WITNESS: No, nothing comes to mind.

7 Are we done with this?

8 MR. MASHMAN: For now, yes.

9 I don't think we have yet, so I'm going
10 to mark -- I'm going to mark the
11 communications that you handed me as
12 Plaintiff's Exhibit 93.

13 (Plaintiff's Exhibit 93 was marked for
14 identification.)

15 MR. MASHMAN: And I'm going to keep
16 this, so I can look through it on a break.

17 I'm handing you Plaintiff's Exhibit 55,
18 which is a letter that was a part of your
19 file to Ms. Ferguson.

20 (Plaintiff's Exhibit 55 was marked for
21 identification.)

22 BY MR. MASHMAN:

23 Q. You sent this to Rough Country's lawyers on
24 November 7 of 2022, correct?

25 A. Yes, sir.

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1 Q. And this was a letter from you acknowledging
2 that you were opening the matter related to this
3 lawsuit, correct?

4 A. Yes, sir.

5 Q. Had you heard -- strike that.

6 Had you worked on the case prior to opening
7 the matter?

8 A. Well, the fact that this is a Monday makes
9 me wonder if maybe I had a phone call on Friday or
10 something. I -- or Thursday, and this was whenever
11 Tara got back in the office to open it.

12 So I guess it's possible. I don't recall
13 doing anything.

14 Q. If you had a phone call the previous week,
15 would that be reflected in the invoices?

16 A. It might not because if it's a new case
17 that's coming up, I frequently don't bill for that.
18 You know, it's a conversation. Sometimes I do,
19 sometimes I don't. Usually, I don't.

20 Q. Would that initial conversation -- you're
21 not saying that conversation did happen. You're
22 saying you don't remember, right?

23 A. That's correct.

24 Q. Would that initial conversation typically
25 just be for something like a conflict check to make

Page 44

1 sure you'd be able to participate in the case?

2 A. Not only a conflict check, but what is it
3 that you are looking for me to do? Am I -- am I
4 qualified to do it?

5 We frequently get phone calls where they
6 want something that I'm not comfortable doing and so,
7 you know, there's a lot of that as part of the
8 conversation.

9 (Plaintiff's Exhibit 56 was marked for
10 identification.)

11 BY MR. MASHMAN:

12 Q. I'm handing you Plaintiff's Exhibit 56,
13 which is the invoices you included as a part of your
14 file.

15 And looking at that first entry on
16 November 7th, 2022, it says you did a teleconference
17 with client to discuss the case on November 7th.

18 Does that refresh your memory that that was
19 that initial call?

20 A. Yeah. That would have been either that week
21 or that day, yeah.

22 Q. And prior to that initial call, would you
23 have heard of the case or worked on it at all?

24 A. No.

25 Q. At the bottom of page 1 of the invoices, it

Page 45

1 indicates that Tara Lee from Mecanica ran a conflict
2 check and opened new matter on that same day on
3 November 7, right?

4 A. That is correct.

5 Q. There are several names in these invoices.

6 How many people worked on this case with
7 you?

8 A. I don't know as I sit here. Probably five
9 or six, maybe -- maybe eight. I -- you know...

10 Q. Who is Ann Grimes?

11 A. She's my wife. She's got a masters degree
12 in engineering. She does accident reconstruction.

13 Q. What was her role in this case?

14 A. She assisted with some of the inspections.
15 She did some scans of vehicles. I think she looked
16 at some of the data as well. She assisted in the
17 reconstruction, the analysis, the set-up, the
18 discussions about the crash test and so on.

19 Q. Who is Christopher Romo?

20 A. He is out of the San Diego office and he's
21 another engineer involved.

22 Q. What was his role?

23 A. He looked at some of the police information,
24 I think, and some of the interrogatories.

25 Q. Who's John Grindey?

Page 46

1 A. John Grindey is one of the owners of the
2 company.

3 Q. Is Mr. Grindey an engineer?

4 A. He is not.

5 Q. What was Mr. Grindey's role in this case?

6 A. He -- I don't know exactly. I know that he
7 looked at the confidentiality agreements and signed
8 those. He may have looked at some of the data and
9 had been part of a conversation about the case, but I
10 don't think he had an active role in the analysis.

11 Q. We mentioned Tara Lee a moment ago.

12 What was her role in this case?

13 A. She's an administrator in the Mesa office.

14 Q. Is she -- sorry, scratch that.

15 She billed for her work on this case,
16 correct?

17 A. Probably most of it. Maybe not all of it.
18 I don't know.

19 Q. Who is Josh Cota?

20 A. Josh Cota is a gentleman out of the
21 California office.

22 Q. What was Josh Cota's role?

23 A. I think he did some of the scan
24 registrations. He may have done drone registration,
25 too. I think he did scan registrations.

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1 Q. What is a scan or drone registration?

2 A. Scan file is essentially a point cloud of
3 measurements made by a three-dimensional scanner.

4 Whenever you scan an object like a vehicle,
5 you have to move the scanner around because it can
6 only scan what it can see. Once you have a series of
7 scans, you have to register them together to make the
8 final point cloud.

9 Q. Who is Cheryl Shoemake?

10 A. She's one of the admin people out of the
11 California office.

12 Q. Who is Kathy Curry?

13 A. She's no longer with the company, but she
14 was part of the admin team in California.

15 Q. And Kathy Curry and Sheryl Shoemake both
16 billed to this matter, correct?

17 A. I don't know.

18 Q. Does would it surprise you --

19 A. It wouldn't --

20 Q. I apologize.

21 A. No, no, my fault.

22 It wouldn't surprise me if they did. I
23 just -- I don't know specifically that they did.

24 Q. If they were listed in here, that would mean
25 that they billed to the matter, right?

Page 48

1 A. That's correct.

2 Q. Who is Jamey Cobb?

3 A. He -- he's also no longer with the company.

4 He was part of the media group out in California. If
5 Josh Cota did the registrations, he would have done
6 it under Jamey Cobb's direction. Jamey Cobb directed
7 that part of the company.

8 Q. Who is David Daren?

9 A. David Daren is another engineer out of the
10 California office.

11 Q. What was David Daren's role?

12 A. He would look at the analysis and have
13 discussions with me especially -- well, initially,
14 looking at different possible ways to analyze this.
15 And then as we got closer and decided to run the
16 crash test, I talked to as many people as I could to
17 just make sure that we got it right.

18 Q. Who is Mark Leonard?

19 A. Mark Leonard is an engineer out of the
20 Arizona office.

21 Q. What was Mark Leonard's role in this case?

22 A. He was active in the analysis of the crash
23 to begin with. Very active in setting up -- helping
24 to set up the crash test parameters and then
25 analyzing the crash test data. And also he looked

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1 at -- along with myself he looked at a lot of the
2 things that the other experts Mr. Buchner and
3 Mr. Lewis and Mr. Roach had done.

4 Q. Who is Jon Balasa?

5 A. He is one of the engineers out of the
6 California office.

7 Q. What was Mr. Balasa's role?

8 A. Same type of thing. He would help with the
9 analysis. I would have discussions with him about
10 what we were doing, if he saw anything that I was
11 missing.

12 Q. Who is John Steiner?

13 A. He's the other owner of the company.

14 Q. What was Mr. Steiner's role in this case?

15 A. I think he looked at some of the data
16 initially, the CDR data, as I recall. He may have --
17 he may have looked at other things, but that's --
18 that's my main recollection.

19 Q. Is Mr. Steiner an engineer?

20 A. He is.

21 Q. Who is Clare Wallace?

22 A. She is the young lady that is out of the
23 Boise office where she works remotely from Boise.

24 Q. What was her role in this case?

25 A. She would have either registered scans or

Page 50

1 registered drone images.

2 Q. Who is Christian Fernandez?

3 A. He's an engineer, kind of an entry level
4 engineer, out of the oxford office.

5 Q. What was Christian Fernandez's role in this
6 case?

7 A. I think he mainly looked at vehicle specs.

8 Q. For what vehicles?

9 A. All of them. I mean, we had several people
10 looking at vehicle specs for the Escape and the 250.

11 Q. When you say looking at vehicle specs for
12 the Escape and the F-250, does that refer to the
13 subject Escape, subject F-250, test Escape and test
14 F-250?

15 A. Yeah. Primarily the subject vehicles, but
16 he could have also looked at some of the specs for
17 the test vehicles. I think he mainly dealt with the
18 subject vehicles.

19 Q. Are you aware of Christian Fernandez or
20 anyone else assessing the specs of any other vehicles
21 other than those four that I just mentioned?

22 A. In this case?

23 Q. In this case.

24 A. No.

25 Q. Who is Dave Gifford?

Page 51

1 A. He is part of the media group.

2 Q. And what was Dave Gifford's role?

3 A. I think he did some drawings or -- the
4 overlays where we lined up the vehicles. He did all
5 of that in CAD, the ones that are in the report.

6 Q. And did you participate in those drawings
7 and overlays with Mr. Gifford or did he provide them
8 to you and then you relied on those?

9 A. I worked with him as well, but Mark Leonard
10 also worked with him on getting the data, getting
11 things aligned and then he produced -- he pushes the
12 buttons to produce the images.

13 Q. Okay. So you and Mark -- is this a fair
14 summary? You and Mark Leonard are providing the
15 information about how to align the vehicles and
16 Mr. Gifford is executing that in the program?

17 A. Yes.

18 Q. Who is Kristina Lombardi?

19 A. She is one of the engineers out of the
20 Arizona office.

21 Q. That was all the names that I saw in your
22 invoices. Is there anyone else that you can think of
23 that worked on this case from Mecanica?

24 A. I don't think so. One of the other young
25 engineers that sometimes does vehicle specs is Henry

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1 Schmoker, but I don't think he -- I -- I haven't gone
2 through this, so I don't know what it is, but he may
3 show up. I don't think he does, but I don't know.

4 Q. So not counting Mr. --

5 A. -- Schmoker, yeah, yeah. S-C-H -- Schmoker,
6 yeah.

7 Q. Not counting Mr. Schmoker, I count 16 people
8 from your office billed to this matter.

9 Does that sound about right?

10 A. If that's the count.

11 Q. It wouldn't surprise you if you had a team
12 of 16 people working on this case?

13 A. No.

14 Q. And of those I count -- well, strike that.

15 I count eight engineers, not including
16 yourself. Does that surprise you?

17 A. That's probably right.

18 Q. It sounds right to you that eight engineers
19 were working on this matter?

20 A. Well, assisted. Yeah.

21 Q. Assisted in this matter?

22 A. Yeah.

23 Q. All right. Do you still have the invoices
24 in front of you?

25 A. I do.

Page 53

1 Q. That first invoice entry that we were
2 talking about earlier, it says: Wes Grimes
3 teleconference with the client to discuss case,
4 review materials, work on obtaining rough estimate
5 for crash testing, discuss with C. Romo.

6 Did I read that correctly?

7 A. You did.

8 Q. What did you talk about during that
9 teleconference?

10 A. The case, what the case involved, the
11 vehicles, things like that is my recollection.

12 I don't have specific memories of that
13 conversation, but that would typically be a first
14 type contact.

15 Q. So a broad outline of what the case is
16 about, what the allegations are and what vehicles
17 were involved?

18 A. Yes.

19 Q. How long was that teleconference?

20 A. I don't -- I don't know.

21 Q. The time that you billed for teleconference
22 plus reviewing materials, plus obtaining estimate for
23 crash testing was three hours -- three and-a-half
24 hours?

25 A. Yes.

Page 54

1 MR. HILL: Object to the form. Go
2 ahead.

3 BY MR. MASHMAN:

4 Q. Yeah, let me ask that again.

5 In that first entry you billed three
6 and-a-half hours for a teleconference, reviewing
7 materials and obtaining an estimate for crash
8 testing, right?

9 MR. HILL: Object to form.

10 THE WITNESS: And also discussion with
11 Chris Romo.

12 BY MR. MASHMAN:

13 Q. And also discussions with Chris Romo. Let
14 me try that one more time.

15 In that first billing entry, you billed
16 three and-a-half hours for a teleconference,
17 reviewing materials, obtaining an estimate for crash
18 testing and discussing the case with Mr. Romo, right?

19 A. Yes.

20 Q. So is it fair that that teleconference
21 lasted less than three and-a-half hours?

22 A. I'm sure it did.

23 Q. Do you have an approximation of what would
24 be typical for that initial teleconference?

25 A. No. No case is typical.

Page 55

1 Q. After the teleconference, it says you worked
2 on obtaining a rough estimate for crash testing.

3 Did Rough Country ask you to obtain an
4 estimate for crash testing during that
5 teleconference?

6 A. No.

7 MR. HILL: I'm going to object -- hold
8 on. Communications with lawyers are limited
9 to those that relate to compensation for the
10 expert's study or testimony, the
11 identification of facts or data that the
12 attorneys provided and/or assumptions that
13 is the attorney provided.

14 So to the extent you're asking beyond
15 those types of communications with the
16 lawyers, I would object and instruct the
17 witness not to answer.

18 MR. MASHMAN: It's reflected in the
19 invoice and it says that he went on to
20 obtain a rough estimate for crash testing as
21 part of the work in this case. The facts
22 underlying that work are discoverable even
23 if they came from attorneys.

24 MR. HILL: I would disagree with that,
25 but you heard my objection.

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1 BY MR. MASHMAN:

2 Q. Are you going to follow your attorney's
3 instruction not to answer?

4 A. He has instructed me not to answer that
5 question. Yes.

6 MR. HILL: Not that question. It was
7 the -- I instructed you not to disclose
8 communications beyond those allowed by
9 Rule 26 as I stated in my objection.

10 BY MR. MASHMAN:

11 Q. Was it Rough Country's idea to run the crash
12 test?

13 MR. HILL: Same objection.

14 THE WITNESS: It was my idea. And
15 especially at this point, I was looking at
16 all kinds of different options to try to
17 understand what we could do and what could
18 be done. But it was my idea to start
19 exploring our different options.

20 BY MR. MASHMAN:

21 Q. And it says you went on to obtain a rough
22 estimate for crash testing.

23 Is that a financial estimate?

24 MR. HILL: Object to the form, but go
25 ahead.

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1 THE WITNESS: It's an -- well, first of
2 all, is the test facility available? Rough
3 idea of what it would cost. Is it -- you
4 know, is it feasible, the vehicles, the
5 scheduling. You know, there's a lot that
6 goes into that.

7 BY MR. MASHMAN:

8 Q. So when you billed on November 7th of 2022
9 for obtaining a rough estimate for crash testing,
10 what facilities did you check for whether they were
11 available?

12 MR. HILL: Object to the form. Go
13 ahead.

14 THE WITNESS: I think I talked to
15 Exponent and it seems like there was someone
16 else, but I don't remember whether I talked
17 to somebody like SEA or somebody like that.
18 I don't remember.

19 BY MR. MASHMAN:

20 Q. But you remember speaking with Exponent to
21 see if they were available --

22 A. Yes.

23 Q. -- on November 7th of 2022?

24 A. I don't know that it would have been contact
25 with them on that date. I may have contacted

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1 somebody else. I know I ended up speaking with
2 Exponent as well. I don't know that it was that
3 date.

4 Q. And that was part of your work on obtaining
5 a rough estimate for crash testing which you billed
6 for on November 7th. Is that fair?

7 A. What was part of it? Part of it was
8 contacting -- talking to people who could run a crash
9 test, when they might be available and things like
10 that. That was all part of that.

11 Q. When you say "part of that," you mean part
12 of obtaining the rough estimate for the crash
13 testing?

14 A. Yes.

15 Q. And the other thing that you mentioned was
16 cost.

17 What was the cost estimate that you came
18 with for the crash testing?

19 MR. HILL: Object to the form. Go
20 ahead.

21 THE WITNESS: I don't remember exactly.

22 I -- I think it was somewhere, you know, a
23 hundred to \$150,000, but I -- at that point,
24 it was a very rough estimate, you know.

25 BY MR. MASHMAN:

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1 Q. Was that rough estimate based on Exponent's
2 pricing for running this type of crash test?

3 A. I don't remember. I'm sure that they were
4 in that ballpark, but I don't remember.

5 Q. Not all crash tests cost the same, right?
6 Is that fair?

7 A. Well, it's my understanding -- I don't run a
8 lot of crash tests, but that's my understanding.

9 Q. When you were obtaining this rough estimate
10 for crash testing, what configurations or variables
11 were you looking at?

12 A. You know, at that point I don't remember the
13 details of it, but I know that we were talking about
14 these vehicles, you know, a Ford F-250 and a Ford
15 Escape and a rear impact type scenario.

16 So we're talking about obtaining vehicles
17 and instrumenting vehicles and things like that.

18 Q. Did your rough estimate include the cost of
19 crash test dummies?

20 MR. HILL: Object to the form.

21 THE WITNESS: I don't remember. It may
22 have. I don't remember. Again, it was a
23 very rough estimate of is this even
24 feasible.

25 BY MR. MASHMAN:

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1 Q. Did your rough estimate assume there would
2 only be one crash test?

3 MR. HILL: Same objection to form.

4 THE WITNESS: I know that at one point
5 we talked about maybe running a separate
6 one. So that number, I don't remember
7 whether it was just one or, hey, if we run
8 one and we immediately run another, do we
9 get a break on the price and things like
10 that? I just don't remember those details.

11 BY MR. MASHMAN:

12 Q. You mentioned that you had talked about
13 running a second crash test.

14 What would the second crash tests have been
15 based on those discussions?

16 A. There wasn't a configuration at that point.
17 Again, same vehicles.

18 Q. So was the idea to run two crash tests both
19 with the F-250 not lifted?

20 MR. HILL: Object to the form but go
21 ahead.

22 THE WITNESS: The idea was I knew there
23 were time constraints with test facilities.
24 And so we hadn't decided what the test
25 configuration was at that point.

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1 But I knew that time always gets away
2 and if you don't schedule testing well in
3 advance, then you're not going to have a
4 test facility available.

5 And so even the remote possibility that
6 we might run a second one, I would have
7 discussed that --

8 BY MR. MASHMAN:

9 Q. And --

10 A. -- with whoever it was.

11 Q. I apologize. I didn't mean to cut you off.
12 Given those time -- strike that.

13 I understand what you're saying to be that
14 test facilities book up and you wanted to make sure
15 that you would get at slot reserved.

16 Is that a fair summary of what you just
17 said?

18 A. Well, again, at that point I'm not actually
19 looking for a slot. I'm looking at the
20 possibilities. I'm looking for a rough estimate.
21 I'm not looking to schedule anything. I'm not
22 looking for a price quote. I'm not looking for
23 anything like that. I'm looking for rough estimates
24 that, you know, here's generally what we're going to
25 look at.

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1 Q. I understand. So what I was asking about
2 was in answer to one of my questions, you mentioned
3 that there were discussions about running a second
4 crash test.

5 My question for you is: In those
6 discussions, was the idea to book a facility for two
7 crash tests in case they book up later?

8 A. That was part of my concern and the
9 discussions that we're having are internally within
10 our office, you know, of here some of the things. We
11 were looking at all kinds of different options to
12 analyze this other than crash tests. What are some
13 other things we could do?

14 And the crash test scenario was one of many
15 options that we talked about but, again, rough
16 estimates.

17 Q. Did you book -- I understand the point about
18 the discussion.

19 Subsequent to the discussion, did you book
20 two slots for crash tests?

21 A. I didn't, no.

22 Q. What would the purpose have been for a
23 second crash test?

24 A. In case something goes wrong with the first
25 crash test.

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1 Q. Would the two crash tests have been
2 configured the same?

3 A. We never discussed the -- a second
4 configuration. We never discussed it.

5 We -- what we -- what I tried to do was set
6 myself up where I had options where I had a second
7 slot in case -- I've attended crash tests where
8 something goes wrong, a vehicle comes lose or a cable
9 breaks or whatever and I didn't then to have to wait
10 for a second slot.

11 And, you know, we -- I knew that we had time
12 constraints on us and so I was trying to give myself
13 as many options as I possibly could.

14 Q. So the only purpose of discussing two crash
15 tests was in case something went wrong in the first
16 one and you'd have to run a second one with the same
17 configuration?

18 MR. HILL: Object to the form but go
19 ahead.

20 THE WITNESS: That's not what I said.
21 That's one possibility. The other thing is
22 if we run one and we see something, we may
23 want to run another. Maybe we run one and
24 it's sufficient. It turns out one was
25 sufficient for everybody involved. But I

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1 was concerned about running out of time to
2 get things done.

3 BY MR. MASHMAN:

4 Q. Was there ever a discussion of running two
5 crash tests, one where the F-250 is lifted and one
6 where the F-250 is not lifted?

7 A. I think we had that conversation within the
8 office and I may have had that conversation with
9 Mr. Hill but, again, just what those possibilities
10 were.

11 We -- I mean, we ended up buying a second
12 set of vehicles. I ended up buying tires and wheels
13 so that, again, if those decisions were made, then I
14 wasn't facing a bottleneck of materials.

15 Q. Have you ever booked two crash tests at the
16 same time in a case where the first one went wrong
17 and you had to use the second one?

18 A. No, no. But in fairness, this is the first
19 crash test I've ever run on a case. I've run
20 handling tests, but I've never run a crash test where
21 it was my case. I did when I was with Cromack, but
22 they were his cases.

23 Q. How many crash tests have you designed?

24 A. I'm not sure what you mean by "design."
25 This is the only case that I can recall where I was

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1 involved where we were -- where I was part of a crash
2 test where it was my case.

3 Q. What about where it wasn't your case?

4 A. Again, I didn't -- I wouldn't have designed
5 those. I would have attended those and assisted back
6 when I was at Cromack, whatever, 30 years ago.

7 Q. And since your time at Cromack, had you
8 attended and assisted in a crash test prior to this
9 case?

10 A. After I left Cromack?

11 Q. Yes.

12 A. I can't recall a case where we ran a crash
13 test. I know that I've been involved in cases where
14 crash tests were run but not by me.

15 Q. Did you participate in the design and
16 configuration of this crash test?

17 MR. HILL: Object to the form. Go
18 ahead.

19 THE WITNESS: I participated in
20 selecting the vehicles, selecting the speed,
21 selecting the orientation of the vehicles
22 and participated in how the vehicles would
23 be configured, loaded.

24 BY MR. MASHMAN:

25 Q. That last part, you're referencing the

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1 weight, how much ballast to put on both vehicles?

2 A. How much and where, yeah.

3 Q. And where, okay.

4 A. But just to be clear, what I -- what I did
5 was give Mr. Crosby targets. And then he --
6 Mr. Crosby -- I think Mr. Crosby designing is a
7 better word for him versus me. I helped layout the
8 configuration, but there's a lot -- design implies a
9 lot to me, you know, where accelerometers are going
10 to be --

11 (Reporter clarification.)

12 THE WITNESS: There's a lot -- design to
13 me is a much more detailed thing than what I
14 would give my contribution here.

15 BY MR. MASHMAN:

16 Q. Is it fair to say you gave Mr. Crosby the
17 configurations and he figured out how to achieve it
18 with respect to speeds, loading, vehicle orientation?

19 A. That's probably a fair statement.

20 Q. What standards and methodologies are used to
21 design crash tests?

22 A. I don't know.

23 Q. How did you communicate the speed, loading
24 and orientation of the crash test to Mr. Crosby?

25 A. We had several phone conversations and -- am

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1 I done with this letter?

2 Q. Yes. And I'll re-ask the question so we
3 have a clear -- how did you communicate the speed,
4 the loading and orientation of this crash test to
5 Mr. Crosby?

6 A. I had phone conversations and I gave him
7 numbers and then we had diagrams, things like this.

8 Q. And those would not have been transmitted
9 orally, correct?

10 A. They might have been. I mean, it was
11 probably a Zoom call where I would pull it up and he
12 would look at it. I don't recall frankly.

13 (Reporter asks for a break.)

14 THE VIDEOGRAPHER: The time is
15 11:35 a.m. We are off video record.

16 (Recess from 11:35 a.m. to 11:53 a.m.)

17 THE VIDEOGRAPHER: The time is
18 11:53 a.m. We are back on video record.

19 BY MR. MASHMAN:

20 Q. All right. Mr. Grimes, I want to pick up
21 where we left off, but before we do that, you
22 mentioned off the record that there were a couple of
23 corrections in your paper file that are not reflected
24 in the electric file.

25 Would you be able to pull those up?

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1 A. And just to be clear, if I don't -- I want
2 to make sure we're clear on it. I don't know if they
3 are on there, on that thumb drive. I don't think
4 they are but I want -- and that's why I want to make
5 sure that you're aware of them.

6 Q. Okay.

7 A. We can start with these two pages. It is
8 the exact same calculation. This is the old one.
9 This is the updated one.

10 Q. And this is your preliminary speed analysis
11 calculation?

12 A. Yes.

13 Q. And what is the change on the preliminary
14 speed analysis calculation?

15 A. The weight on the old one was the test
16 weight of the vehicle, the F-250 and for this
17 calculation it should be the weight of the actual
18 vehicle in the crash, so I made that change.

19 Q. Okay. I'm going to hand you a sticker that
20 says "Plaintiff's Exhibit 94," if you can put that on
21 the new version.

22 A. Okay.

23 (Plaintiff's Exhibit 94 was marked for
24 identification.)

25 THE WITNESS: Okay. And can we get it

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1 copied because I'm not leaving this?

2 MR. MASHMAN: Yeah. We'll --

3 MR. HILL: We'll do that later.

4 MR. MASHMAN: Let me get all the
5 corrections first.

6 THE WITNESS: I understand.

7 BY MR. MASHMAN:

8 Q. So that's Exhibit 94. That was one
9 correction of your preliminary speed analysis
10 document.

11 Were there any other corrections that are in
12 the paper file you brought with you?

13 A. Yes, sir. This is a two-page document. The
14 first page deals with the tire size. There was
15 nothing changed there.

16 But on the second page, again, the old one
17 had the test weight of the Ford F-250 and for this
18 calculation, I changed it to the weight of the actual
19 vehicle at the time of the crash.

20 (Plaintiff's Exhibit 95 was marked for
21 identification.)

22 BY MR. MASHMAN:

23 Q. All right. I'm going to hand you an exhibit
24 sticker with Plaintiff's Exhibit 95 on it. And if
25 you could put that on the new --

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1 A. Do you want just the page that changed or do
2 you want both pages?

3 Q. Both pages.

4 A. So I'll put it on this cover here.

5 Q. Yes. On the corrected version?

6 A. Yes.

7 Q. Yes, okay. And were there any other
8 corrections that were in your paper file?

9 A. There's one more.

10 Q. Okay. And if you could keep those out, so
11 we don't lose them as they get shuffled back into the
12 binder.

13 Is the preliminary speed analysis exhibit
14 out as well?

15 A. Yes.

16 Q. Great, great.

17 MR. HILL: After we get done with these
18 three, why don't we take a 20-second break
19 and get these copied, so you have them for
20 later?

21 MR. MASHMAN: I appreciate that.

22 THE WITNESS: These are the vehicle spec
23 sheets. We call them green sheets. And
24 this is the one that's updated and the CG
25 location -- it was just wrong. Whenever I

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1 did the calculation or whoever did it, it
2 was just wrong and I caught it when I was
3 reviewing. So the updated one has the
4 correct CG location.

5 BY MR. MASHMAN:

6 Q. Is this the green sheet for the Escape or
7 the F-250?

8 A. The Escape.

9 Q. And the subject Escape or the test Escape.

10 A. That doesn't matter. The weights -- well,
11 this is for the subject vehicle.

12 Q. For is subject vehicle?

13 A. Yeah, yeah.

14 Q. And we'll get into this later, but you used
15 that calculation then and applied it to how the test
16 vehicle was configured --

17 A. For the total weight, yes.

18 MR. MASHMAN: Let me pass you a sticker
19 that says Plaintiff's Exhibit 96 to put on
20 the corrected version on the vehicle specs
21 sheet for the subject Escape.

22 (Plaintiff's Exhibit 96 was marked for
23 identification.)

24 BY MR. MASHMAN:

25 Q. Just for purposes of the record, is "CG"

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1 center of gravity?

2 A. Yes.

3 MR. HILL: You got another sticker? It
4 kind of got smudged.

5 MR. MASHMAN: Yes.

6 (Discussion ensued off the record.)

7 MR. HILL: You-all want to take a break
8 for me to copy these?

9 MR. MASHMAN: Yes, please.

10 THE VIDEOGRAPHER: The time is
11 11:58 a.m. We are off video record.

12 (Recess from 11:58 a.m. to 12:01 a.m.)

13 THE VIDEOGRAPHER: The time is
14 12:01 p.m. We are back on video record.

15 BY MR. MASHMAN:

16 Q. All right. I don't think I asked you this
17 on the record.

18 Other than those three corrections on
19 Plaintiff's Exhibit 94 to 96, are there any
20 corrections that are in your paper files that are not
21 in the digital file?

22 A. No, sir.

23 MR. MASHMAN: Okay. And, Mr. Hill, I'm
24 going to hand you Plaintiff's Exhibit 53,
25 which is the digital version. If you'd be

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1 willing to add the corrected version of
2 those documents onto the digital ones just
3 so at the end of it we have a full corrected
4 version of this file.

5 MR. HILL: Sure.

6 THE WITNESS: So she's --

7 MR. HILL: I will need to get it in
8 electronic format. So, yeah, she'll have to
9 scan it --

10 BY MR. MASHMAN:

11 Q. All right. I want to ask you about an entry
12 on -- in your invoices if you still have that in
13 front of you --

14 A. Yes, sir.

15 Q. -- on February 24, 2023?

16 A. Can you give me a page number?

17 Q. They are not numbered --

18 A. Oh, okay.

19 Q. -- consecutively.

20 A. Okay. February?

21 Q. February 23 and 24th of 2023.

22 A. Okay. There's two items on that page.

23 Q. And the issue date for that invoice is
24 February 24th of 2023 just to make sure we're looking
25 at the same thing in the top right?

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1 A. Oh, yes. Got it.

2 Q. There are two invoices here, one of which is
3 fees for Wes Grimes and the other which is listed
4 under expenses.

5 The fees item says: Wes Grimes discussion
6 with client. Order tires and wheels for testing.

7 Is that correct?

8 A. Yes.

9 Q. That was on February 23rd of 2023?

10 A. Yes.

11 Q. And the expenses items says: Wes Grimes,
12 tires and wheels for vehicle testing, specialized
13 wheels and tires; is that correct?

14 A. Yes.

15 Q. And that expense cost \$7,987.11?

16 A. Yes.

17 Q. Do these reflect you purchasing the tires
18 that Mr. Elliott had on the subject F-250 for the
19 purpose of testing?

20 A. Not the tires but the same make model of
21 tires and wheels.

22 Q. And the purpose of that was to outfit the
23 test F-250 with those tires for the crash test?

24 A. The purpose was to have them with us
25 because -- whenever I checked on the availability,

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1 there was -- they were limited. They weren't making
2 them anymore, at least weren't shipping them anymore.
3 So I grabbed them as quickly as I could, so we didn't
4 have to substitute a different wheel. And it was to
5 have them there in case we ever decided to test with
6 wheels and tires.

7 Q. So at that time, what you're saying is that
8 these were not purchased -- strike that.

9 At the time of this invoice, you did not
10 purchase these tires for use in the test but just in
11 case you wanted to use them in the test?

12 A. Yes. I just wanted options.

13 Q. And those tires, ultimately, were not used
14 in the test?

15 A. That is correct.

16 Q. Where are they now?

17 A. I think Exponent has them. They better have
18 them. I had them shipped to Exponent and I think
19 that they have them.

20 Q. When was the decision made not to use the
21 larger tires that had been on the subject F-250 in
22 the crash test?

23 A. Well, I guess I think of it differently. We
24 just never made the decision to use them. You know,
25 we -- as we looked at what we were going to do and I

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1 was talking to various people within the company
2 and -- about the testing and, you know, I'm getting
3 ready to spend a lot of money, is there anything I'm
4 missing, what do you think and having those
5 discussions.

6 I decided to test without any lift kit and
7 without any tires and wheels first. And then we
8 proceeded that way. I had options if we chose to do
9 something different.

10 Q. When was a decision made to run the first
11 iteration of the crash test without any modifications
12 to the wheels or lift?

13 MR. HILL: Object to the form. Go
14 ahead.

15 THE WITNESS: I don't know when that
16 exact decision was made.

17 BY MR. MASHMAN:

18 Q. Do you agree that if you had run the test
19 with the wheels that you ordered on February 24th of
20 2023, you would have to put a lift on the test F-250?

21 A. Well, you wouldn't have to but it wouldn't
22 make sense to do it otherwise.

23 The tires would fit but with the width of
24 it, it wasn't -- it wasn't roadworthy, so it just
25 didn't make any sense. We never considered -- I

1 never considered doing that. If you're going to put
2 the large tires on it, you've got to put the lift kit
3 on it.

4 Q. That's what I was going to ask.

5 The intent of purchasing these tires was not
6 to run a crash test where these tires on but the
7 vehicle is not lifted. The only time it would make
8 sense to use these tires would be if you were lifting
9 the F-250 for the crash test, right?

10 A. I don't know that I had made that decision
11 at that point. Ultimately, that was my decision,
12 though, that it doesn't make sense to have it without
13 the lift kit.

14 Again, whenever I ordered them and received
15 them and sent them over to Exponent, I was just
16 trying to give myself options.

17 Q. And so you bought these tires in case you
18 would need them, right?

19 A. Yes.

20 Q. You would only need them if you were lifting
21 the F-250, right?

22 A. With my knowledge now, yes. What I'm saying
23 is I don't know that I had that knowledge when I
24 ordered the tires. I may have. I just don't
25 remember.

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1 You know, again, I was giving myself
2 options. And then later it became clear that there
3 was no reason to consider running it without the lift
4 with the large tires because it just wasn't going to
5 be roadworthy.

6 Q. Do you agree that you bought the tires to
7 run the crash test with a lifted F-250?

8 A. That's not what I said. I bought the tires
9 and wheels to give myself options so that if I ever
10 wanted to -- as we got closer to making those
11 decisions, if I needed those larger wheels and tires,
12 I had them.

13 Q. Do you -- I'll change the question slightly
14 then.

15 Do you agree that you bought the tires to
16 run the crash test with -- I apologize. One moment.

17 Do you agree you bought the tires -- I
18 apologize.

19 Do you agree you bought the tires in case
20 the decision was later made to run the crash test
21 with the lifted F-250?

22 MR. HILL: Object to the form but go
23 ahead.

24 THE WITNESS: I bought the tires and
25 wheels so that I had them because I knew

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1 they were in short supply in case I ever
2 wanted to use them in a test. Whether
3 lifted or not, when I made that decision --
4 what I'm trying to convey to you is I don't
5 know when I came to the realization of, you
6 know, we really can't run it with just the
7 large tires because it's not roadworthy.

8 I don't think I had that knowledge when
9 I bought the wheels and tires. I think it
10 was once we got them and looked at them, it
11 was like, hold on, this -- this doesn't make
12 sense.

13 So I later -- or at some point rejected
14 the very concept of running it with large
15 wheels and tires without the lift kit. I
16 don't know as I sit here today, whatever, a
17 year plus a few months later, when I finally
18 decided that. I bought the wheels and tires
19 in February to give myself options.

20 BY MR. MASHMAN:

21 Q. Do you agree --

22 A. Do you want me to keep the original or do
23 you want me to put a color copy and you keep the
24 originals? I really don't care.

25 (Discussion ensued off the record.)

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1 BY MR. MASHMAN:

2 Q. Do you agree that you bought the tires so
3 that you would be able to run the crash test with a
4 lifted F-250 if you decided to?

5 MR. HILL: Object to the form but go
6 ahead.

7 THE WITNESS: I bought the wheels and
8 tires so if I ever decided to use them, I
9 had them.

10 BY MR. MASHMAN:

11 Q. So it's a --

12 A. Give me just a second. I'm trying to get
13 things put away.

14 MR. HILL: I didn't mean to interrupt
15 that. You can do that during a break.

16 THE WITNESS: Okay. Yeah, you know
17 what? Let me just set these down here. I
18 apologize. Go ahead.

19 BY MR. MASHMAN:

20 Q. Do you agree that you bought the tires so
21 that you would be able to run the crash test with a
22 lifted F-250 if that decision was made down the line?

23 MR. HILL: Object to the form but go
24 ahead.

25 THE WITNESS: I think I've answered that

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1 over and over. I mean, I bought the wheels
2 and tires so I had options. I wasn't going
3 to -- I wasn't going to run the test -- at
4 that time, anyway, I don't think I had the
5 intention of running the test with the lift
6 kit without the large tires but -- and later
7 I came to the conclusion I can't run it with
8 the large tires without the lift kit.

9 I've said it several times now. In
10 February of 2023, I don't know that I had
11 thought that through. I bought the wheels
12 and tires so I had options because they were
13 in short supply.

14 BY MR. MASHMAN:

15 Q. You said so I had options. One of those
16 options would be to run the crash test with the lift
17 with the oversize tires, correct?

18 A. Yes.

19 Q. When I asked you some time ago about whether
20 you had reserved a second slot at a testing facility
21 to run a second crash test, you said I didn't. I
22 just wanted to follow up on that.

23 To your knowledge, did anyone reserve a
24 second slot at a crash test facility?

25 A. I don't know. I know there was discussions

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1 about it, but I don't know.

2 Q. There were discussions about reserving a
3 second slot at a crash test facility?

4 A. Yes.

5 Q. And you're saying you don't know whether
6 that was ever done?

7 A. I don't. I think it may have before, but I
8 don't even know. It would have been within a few
9 days of the first one if we were going to do it.
10 That was the discussion.

11 Q. And would that have been done by someone
12 working for Mecanica?

13 MR. HILL: Object to the form but go
14 ahead.

15 THE WITNESS: If it was done by somebody
16 from Mecanica, it would have been me and I
17 didn't do it.

18 I think Exponent worked out a second
19 contract. I never was involved in any of
20 the contract stuff, so I'm sure they worked
21 it out with Mr. Hill's office to pay for the
22 test. We didn't pay for the test. Mecanica
23 didn't pay for the test.

24 BY MR. MASHMAN:

25 Q. Oh, I see. I'm asking about reserving a

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1 slot for the test and there were discussions about
2 reserving two lot slots.

3 A. Right.

4 Q. You said you don't know of anybody at
5 Mecanica reserving a second slot for a crash test,
6 but that may have happened. Is that a fair summary?

7 A. Yeah. And if it was -- if the second slot
8 was reserved, it would have been me reserving it in
9 my discussions with Charlie Crosby. I know we're
10 going to run this test. Do we have a second day?
11 But I'm not sure if that's reserving it.

12 I don't know. We had those conversations
13 about having a second day if something went wrong.
14 We had back-up vehicles. We had all of that ready in
15 case we needed to do it.

16 Q. Okay. Just to understand that, are you
17 saying a second reservation also -- strike that.

18 Are you saying a second reservation at
19 Exponent or are you saying a second reservation at a
20 separate facility other than Exponent?

21 A. The thing that bothers to me is the
22 reservation because I -- I think -- and I don't know
23 Exponent. I don't run crash tests routinely.

24 I think that if you're going to do a
25 reservation, you probably have to sign some contract

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1 and give them some money. I wasn't involved in any
2 of that.

3 Mr. Crosby and I talked about having a
4 second day at Exponent that we could run a second
5 test in case something went wrong or -- or we needed
6 a second test. It turns out we didn't.

7 Q. And a second day where Exponent's facility
8 is available for your use, is that a fair way of
9 putting that instead of reservation?

10 A. Yes.

11 MR. MASHMAN: All right. I'm going to
12 hand you what's been marked as Plaintiff's
13 Exhibit 57.

14 (Plaintiff's Exhibit 57 was marked for
15 identification.)

16 BY MR. MASHMAN:

17 Q. And this is a sheet summarizing your
18 invoicing in this case to date.

19 Does this appear to be a fair summary of the
20 invoices that you have submitted to Rough Country to
21 today's date?

22 A. If -- if those are the numbers that were
23 produced. I haven't looked at them. But if those
24 were the numbers produced, yeah, that's it.

25 Q. Would these numbers surprise you?

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1 A. Not really. We spent a lot of time trying
2 to make sure we got it right. You know, I've never
3 done a case where I ran a crash -- or had a crash
4 test run, so I'm not sure that I have what's typical.
5 I don't know.

6 Q. And the -- this would include all the work
7 on the invoices, which would be your work plus the
8 team of 15, 16 other Mecanica employees that were
9 billing to this file correct?

10 A. Right. And all the expenses.

11 Q. And all the expenses.

12 And adding up the invoices, the total to
13 date is \$200,668.68.

14 Sitting here today, do you have any reason
15 to disagree that Mecanica has charged Rough Country
16 that amount for its work in this case?

17 A. No. I mean, I haven't checked your math,
18 but the list is the list.

19 Q. And the last invoice produced is dated
20 April 15th of 2024, right?

21 A. Yes.

22 Q. So that \$200,668 number would not include
23 preparation for today's deposition, travel or the
24 deposition itself, right?

25 A. That's correct.

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1 Q. And it wouldn't include any future work that
2 you performed leading up to trial, right?

3 A. That's correct.

4 Q. How many different cases are you working on
5 at the moment?

6 A. I don't know. Probably 20 or so, 25. I
7 don't know.

8 Q. Twenty to 25 is your best estimate of how
9 many cases you have right now?

10 A. Well, that's not what you asked. You asked
11 cases I was working on.

12 Q. Okay.

13 A. I mean, there's a lot of cases that we have
14 that are dormant. I don't have something due for a
15 long time, so I'm not actively working on them.

16 Q. Let me re-ask the question.

17 Is 20 to 25 your best estimate of how many
18 cases you have that you are working on at the moment?

19 A. Yeah. Let me -- let me say it this way.
20 That's my estimate of the cases that I've worked on
21 in the last couple of months, you know.

22 Q. Okay.

23 A. Are we done with this?

24 Q. Yes. Did you participate in an LEC in this
25 case?

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1 A. What do you mean by "LEC"?

2 Q. Well, have you heard the term "LEC"?

3 A. I have.

4 Q. And do you understand that to be a
5 lawyer-engineer conference?

6 A. That's the way I have heard it used. Yes.

7 Q. And to your understanding, what is an "LEC"?

8 A. Well, from my point of view, it's either a
9 telephone call or a -- nowadays a Zoom call where you
10 have attorneys and engineers, maybe not all of them
11 involved but attorneys and engineers. And you're
12 discussing a case or discussing analysis or, you
13 know, future work things like that. You're just kind
14 of reviewing the case and the analysis.

15 Q. And you said you have attorneys and
16 engineers present. You're talking about the
17 attorneys who hired you, right, not all the attorneys
18 in the case?

19 A. Correct, yes.

20 Q. And with engineers you're talking about the
21 engineers who were hired by the attorneys who hired
22 you, not all the expert witnesses in the case, right?

23 A. That's correct. Yes.

24 Q. Meaning -- what I'm getting at there, the
25 plaintiff's attorneys weren't present and the

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1 plaintiff's experts weren't present, right?

2 A. That's correct.

3 Q. It's the defendant's attorneys in this case
4 and the defendant's experts that were present on
5 these LECs --

6 THE REPORTER: Slow down.

7 MR. MASHMAN: I apologize.

8 THE WITNESS: Well, I'm not sure when
9 you say these LECs. We had conversations.
10 I would not have called them LECs. If
11 somebody called them LECs, I'm not going to
12 dispute the term if somebody else called it
13 that.

14 We had telephone conversations. We had
15 Zoom conversations with the attorneys and
16 the experts involved in the case.

17 BY MR. MASHMAN:

18 Q. You've had --

19 A. We had those conversations.

20 Q. I apologize.

21 You've had conversations where the attorneys
22 representing Rough Country and the other expert
23 witnesses hired by Rough Country are present?

24 A. And I don't know that they are all the other
25 experts, you know, but some of them, sure.

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1 Q. Okay. And what is the purpose of having
2 these LEC calls?

3 MR. HILL: Object to form. Go ahead.

4 THE WITNESS: Well, my purpose is to
5 communicate with the attorneys and either
6 obtain information or give information to
7 other experts if that needs to happen.

8 BY MR. MASHMAN:

9 Q. Do you have your invoices in front of you?

10 A. Yes.

11 Q. Exhibit 56, I think.

12 A. Page 56?

13 Q. I'm sorry. Exhibit 56. This one isn't page
14 numbered.

15 A. Yes, yes. This is Exhibit 56.

16 Q. I'm looking at the entry -- and, again,
17 there's no page number -- for March 27th of 2023.

18 Can you let me know when you get there?

19 A. Okay. Does the -- issue date 4/15?

20 Q. Yes.

21 A. Okay. I think I'm on that page.

22 Q. All right. And there's a billing entry.
23 It's the second one on this page. It says: Wes
24 Grimes -- I assume that's review -- review photos,
25 scans, et cetera, prepare for Zoom meeting. Meet

Page 90

1 with client to discuss case. Possible testing, ECM
2 data from Escape, et cetera.

3 Did I read that correctly?

4 A. Yes, sir.

5 Q. Were there other experts on that Zoom call
6 as well?

7 A. Not that I recall. There may have been. I
8 don't know. Let me look at this.

9 There may have been. I don't know.

10 Q. You recall there being Zoom meetings where
11 other experts were present, though, right?

12 A. I think there were Zoom meetings. I don't
13 think they were just phone calls. I think they were
14 Zoom meetings.

15 Q. And the time for this entry is three
16 and-a-half hours, correct?

17 A. It is.

18 Q. Did you ever show a presentation via
19 PowerPoint, documents, exhibits, or otherwise, to
20 other experts at any point?

21 A. No.

22 Q. Do you recall other experts showing you a
23 presentation?

24 A. Not that I recall. Like a PowerPoint type
25 presentation or something?

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1 Q. Any sort of presentation.

2 A. No, no. Nothing like that, that I recall.

3 Q. Did you take notes during meetings with
4 other experts?

5 A. No.

6 Q. What other experts do you recall attending
7 these lawyer-engineering conference meetings with
8 Rough Country?

9 A. Sometimes it would be Dr. Nguyen and
10 sometimes it would be Mr. Crosby.

11 There may have been one where Mr. Leonard
12 joined us. I don't recall, you know, specific
13 meetings and specific attendees.

14 Q. And Mr. Leonard is another engineer from
15 your office, right?

16 A. He is. Yes.

17 Q. Do you recall being asked to do additional
18 work after an LEC?

19 MR. HILL: I'm object to the form.

20 Answer it to the extent you can.

21 THE WITNESS: Not like that. I mean,
22 some of -- again, I wouldn't use the term
23 LEC. If you want the use it, that's fine.

24 I had conversations with the attorneys.

25 Sometimes other experts were there. Most of

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1 the time it was to give a status and, Hey,
2 here's what we're working on, here's where
3 we're going. We certainly had a lot of
4 conversations around the crash test and
5 things like that.

6 BY MR. MASHMAN:

7 Q. I'm going to refer you to the entry of
8 May 5th of 2023 in your invoices.

9 A. Okay.

10 Q. And that's -- it says page 2 of 4 for that
11 particular invoice, right?

12 A. Okay.

13 Q. And there's an entry there that says: Wes
14 Grimes. Work on analysis. Review photos and make
15 notes regarding cargo in both vehicles. Discussions
16 with M. Leonard about cargo and vehicle weights.
17 Attend Zoom meeting to discuss crash testing, comma,
18 case issues. Work on determining vehicle alignment
19 at impact.

20 Did I read that correctly?

21 A. Yes.

22 Q. And that billing entry is for seven
23 and-a-half hours, correct?

24 A. Yes.

25 Q. The crash testing in this case was done on

Page 93

1 May 13th of that year; is that right?

2 A. I know it was May. I want to say it was the
3 15th, but if you say the 13th -- yeah, it shows
4 here -- let's see. Yeah, the test date was May 15th.

5 Q. The test date was May 15th?

6 A. Yeah. That's what the report shows anyway.

7 Q. So this Zoom meeting in your billing entry
8 was 10 days before the crash test was run; is that
9 right?

10 A. Yes.

11 Q. And at that time you were having
12 conversations about cargo and vehicle weights; is
13 that correct?

14 A. Yes.

15 Q. Had the decision been made at that point
16 whether to put cargo in the rear seat -- strike that.

17 Had the decision been made at that point to
18 put cargo in the rear of the test Escape for the
19 crash test?

20 A. It certainly would have been made around
21 that time period. Yes.

22 Q. So approximately 10 days before the crash
23 test?

24 A. It had been made by that time. I don't
25 know -- I can't tell you exactly when that decision

Page 94

1 was made, but the decision was made to not to put
2 cargo in the back.

3 Q. You said around that time period, so shortly
4 before --

5 A. I'm going to say within -- I'm going to say
6 within 30 days of that probably. Again, I don't
7 recall exactly when that decision was made.

8 And just to be clear, it wasn't -- the
9 decision was never let's put cargo in the back and
10 then later we rescinded that. That decision was
11 never made. It was always we were discussing it,
12 looking at, you know, the effects of that. And we
13 generally defaulted to we don't know where the cargo
14 would be located, so let's not put the cargo in, you
15 know, especially in that first test.

16 MR. MASHMAN: I'm handing you
17 Plaintiff's Exhibit 58. That is a copy of
18 your report in this case.

19 (Plaintiff's Exhibit 58 was marked for
20 identification.)

21 BY MR. MASHMAN:

22 Q. Have you written a report for a federal
23 court before?

24 A. I'm sure we have. I'm sure I have, yeah.

25 Q. Approximately, how many times?

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1 A. I don't know. Over all the years, I don't
2 know, several times, yeah.

3 Q. Are you familiar with the rule that governs
4 what an expert's reports must contain in federal
5 court?

6 A. Well, I think I am.

7 Q. You --

8 A. I -- it's my attempt to do that. If I'm
9 missing something, I'm sure you'll tell me. It's my
10 attempt to follow that rule.

11 Q. Does your report contain a complete
12 statement of all the opinions that you will express
13 in this case?

14 A. I think it contains the majority of it. I
15 mean, within the report -- obviously, I don't know
16 what I'm going to be asked. But I think it contains
17 everything I can think of as I sit here today.

18 Q. Sitting here today, are there any opinions
19 that is you intend to offer about this case that are
20 not included in your report?

21 A. I received some documents from
22 Mr. Buchner's -- well, I received them from Mr. Hill
23 but I guess they were generated by Mr. Buchner
24 yesterday. I received those. And I looked through
25 them last night.

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1 I might develop opinions about that new
2 material that, quite frankly, I just haven't had a
3 chance to go through yet in detail.

4 Q. So aside from the material that you got that
5 was generated by Mr. Buchner's office yesterday, are
6 there any additional opinions that you intend to
7 offer about this case that are not in your report?

8 MR. HILL: Object to the form. You can
9 go ahead.

10 THE WITNESS: Nothing comes to mind as I
11 sit here.

12 BY MR. MASHMAN:

13 Q. And does your report include a complete
14 statement of all the basis and reasons for your
15 reasons?

16 MR. HILL: Object to the form. Go
17 ahead.

18 THE WITNESS: I believe it does. As I
19 sit here, I believe it does, again, other
20 than what I received from Mr. Buchner.

21 BY MR. MASHMAN:

22 Q. You didn't leave out any of the support that
23 you intend to rely on for your opinions?

24 A. I don't think so.

25 Q. And does your report include all the facts

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1 and data and research you considered in forming your
2 opinions?

3 MR. HILL: Object to form.

4 THE WITNESS: I believe it does. Yes.

5 BY MR. MASHMAN:

6 Q. And it include all of your qualifications
7 relevant to this case?

8 A. That, along with my CV, yes, sir, I believe
9 it does.

10 Q. Sitting here today, is there any other work
11 that you're planning to do in this case?

12 MR. HILL: I'll lodge an objection just
13 for the record saying that -- sorry. Are
14 you okay?

15 THE WITNESS: I just didn't want to
16 blast his ears out with my cough.

17 MR. HILL: No problem. As he mentioned,

18 we received late last night -- or last

19 evening additional work from Mr. Buchner.

20 We -- obviously, we're not waiving any
21 objection we have to the timeliness of that
22 material and/or this witness' ability to
23 review and give comments on that and reserve
24 the right for him to supplement or amend his
25 opinions based upon that new information

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1 produced, whatever it was, 14 hours ago.

2 So go ahead. You can answer.

3 MR. MASHMAN: I'll re-ask the question.

4 BY MR. MASHMAN:

5 Q. Sitting here today, is there any other work
6 that you are planning to do in this case?

7 A. I'm planning on having a conversation with
8 Mr. Hill about whether I should delve in more detail
9 into Mr. Buchner's materials. Again, I looked at it
10 last night, but I may ask for approval to go into it
11 in more detail. I haven't thought about that enough
12 yet.

13 Q. When you Mr. Buchner's materials, you're not
14 referring to all of Mr. Buchner's materials. You're
15 referring to Mr. Buchner's materials that you
16 received yesterday; is that fair?

17 A. Well, that I received yesterday and that
18 reliance upon his other materials, but yeah.

19 Q. Aside from that, is there any other work
20 you're planning on doing in this case sitting here
21 today?

22 A. I plan on creating some exhibits for trial
23 if we go to trial some of those exhibits that we
24 talked about that I listed in the report. You know,
25 we may or may not use all of them, but we would

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1 certainly work on those.

2 Q. Is there anything -- I apologize. Were you
3 done with your answer?

4 A. I was going to say I think that's the only
5 thing I can think of.

6 Q. You anticipated my next question.

7 You're not offering an opinion on the topic
8 of defect in this case; is that right?

9 A. That's correct.

10 Q. So you're not intending to offer the opinion
11 at trial that the Rough Country lift kit was not
12 defective?

13 MR. HILL: Object to the form. Go
14 ahead.

15 THE WITNESS: I have no plans to address
16 that. I'm doing the accident
17 reconstruction.

18 BY MR. MASHMAN:

19 Q. You performed a scene inspection on
20 December 12th, 2022, correct?

21 A. Yes.

22 Q. And on -- I believe it's page 5 of your
23 report -- do you have your report in front of you?
24 I'll wait for you to get to it.

25 A. Okay.

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1 Q. You discuss your conclusions related to the
2 scene of the accident on page 5 of your report,
3 correct?

4 A. Yes.

5 Q. And in Figure 3, you documented the location
6 of the points of rest for the Bryson Escape and the
7 lifted F-250 after the collision; is that right?

8 A. Yes, as shown in the SCRT photos.

9 Q. So those points of rest were originally
10 indicated by police, right?

11 A. Well, I think that they were originally
12 indicated by police. I mean, there's paint marks in
13 the SCRT photos.

14 Q. And is this consistent with your opinion
15 about the ultimate points of rest after the subject
16 collision?

17 A. Yes.

18 Q. Do you have any opinion about whether the
19 Georgia statute -- strike that.

20 Do you have any opinion regarding the
21 Georgia statute about altering a vehicle's
22 suspension?

23 A. I don't have any conclusion specifically.

24 It's my understanding -- I actually was talking to
25 Mr. Hill about this yesterday. It's my understanding

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1 there's I guess some new proposed statute that he
2 showed me.

3 It is what it is. I mean, I -- I'm not here
4 to talk about whether a statute applied or didn't
5 apply, you know.

6 Q. That's what I was going to ask. You're not
7 intending to offer the opinion about whether a
8 particular statute apply or didn't apply to this
9 case, right?

10 A. That to me sounds like a legal question and
11 I don't typically deal with legal questions.

12 Q. Going back to the scene inspection, did you
13 determine the point of impact for the collision?

14 A. Basically, just as SCRT had -- whenever I
15 was there, there really wasn't any evidence left. So
16 everything we rely upon is from the SCRT materials.

17 Q. You didn't find any evidence to dispute the
18 SCRT materials regarding the point of rest or the
19 point of impact?

20 A. That's correct.

21 MR. MASHMAN: I'm handing you
22 Plaintiff's Exhibit 60, which is materials
23 from your file labeled as: Aerial mosaic of
24 the scene of the collision.

25 (Plaintiff's Exhibit 60 was marked for

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1 identification.)

2 BY MR. MASHMAN:

3 Q. I'm going to hand you a Sharpie.

4 Would you be able to circle on Plaintiff's
5 Exhibit 60 where you determined the point of impact
6 to be?

7 MR. HILL: Object to form.

8 THE WITNESS: You want a circle?

9 MR. MASHMAN: Yes, please.

10 (Witness complies.)

11 BY MR. MASHMAN:

12 Q. And can you hold that up?

13 A. (Witness complies.)

14 Q. Did you determine within -- that circle
15 appears to cover multiple lanes.

16 Did you determine which of those lanes the
17 point of impact was in?

18 A. It would be the inside lane. I don't know
19 how you number them in Georgia. In Arizona, it would
20 be lane number one. I think it's the same in
21 Georgia, the inside lane.

22 Q. Does that mean the left lane that is not a
23 turn lane?

24 A. It is the -- yes, the left through lane.

25 Q. The left through lane. So not the turn lane

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1 which is to the left of that, right?

2 A. That is correct.

3 Q. Did you determine how far the Escape
4 traveled between the point of impact and the point of
5 rest?

6 A. Just approximately, again, from the SCRT
7 materials.

8 Q. And where -- strike that.

9 How far did you determine the Ford escaped
10 travel forward from the point of impact to the point
11 of rest?

12 A. That's why I can't find it.

13 I think I estimated it to be about 150 to
14 155 feet, but I would rely upon the SCRT materials.

15 Q. Do you agree that the Escape point of rest
16 was to the left of the point of impact?

17 A. It was. Yes.

18 Q. Did you determine how far to the left --

19 A. And just to be clear to the left relative to
20 the lanes on the roadway.

21 Q. If someone were traveling in the same
22 direction as the Ford Escape, it would be to the left
23 and forward of the point of impact, correct?

24 A. Yes.

25 Q. Did you determine how far to the left of the

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1 point of impact the Escape's point of rest was?

2 A. Not specifically other than what SCRT says.

3 Q. Sitting here today, do you have an
4 approximation?

5 A. I don't. I can look it up in the SCRT
6 materials.

7 Q. And did you determine how far the F-250
8 traveled between the point of impact and the point of
9 rest?

10 A. Again, just from the SCRT materials.

11 It's my understanding that, essentially, the
12 vehicles stayed very near each other and then the
13 F-250 backed away.

14 So when you say "final rest," he actually
15 had backed away some distance before he actually came
16 to a stop. That wasn't the uncontrolled point of
17 rest during the crash.

18 Q. Did you determine where the uncontrolled
19 point of rest during the crash was?

20 A. It would have been right behind the Escort,
21 again, relying just upon the SCRT materials.

22 Q. So would that be approximately 150 to
23 155 feet forward from the point of impact?

24 A. Again, whatever the SCRT materials show. As
25 I sit here, I can't give you a specific number.

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1 Q. Would you agree that that was -- that --
2 strike that.

3 Do you agree that the F-250's point of rest
4 from the accident sequence was also to the left of
5 the point of impact?

6 A. I believe it was. Yes, sir.

7 MR. MASHMAN: I'm handing you
8 Plaintiff's Exhibit 59, which are your notes
9 from your scene inspection.

10 (Plaintiff's Exhibit 59 was marked for
11 identification.)

12 MR. HILL: Did you say 59?

13 MR. MASHMAN: Yes, 59.

14 MR. HILL: Thank you.

15 BY MR. MASHMAN:

16 Q. Did these notes capture all of your
17 observations and conclusions related to the scene
18 inspection performed on December 12th of 2022?

19 A. I'm not going to say all of them and my
20 photos as well. But in general, these are the notes
21 that I made while I was there.

22 Q. Is there anything particular in the photos
23 or videos that you took at the scene on December 12th
24 of 2022 that form the basis of your opinions that's
25 not captured in these notes?

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1 A. Nothing that I can think of.

2 Q. Your notes mention the grading of the
3 intersection.

4 Did the grading of the intersection impact
5 your reconstruction of the collision?

6 A. I looked at what kind of deceleration rate
7 would be involved there. But, really, it didn't have
8 a great effect on it, on my reconstruction.

9 I started down doing a traditional
10 reconstruction. We have airbag data and the case
11 quickly became about the intrusion. And so I didn't
12 spend a lot of time exploring what that grade was and
13 how it affected things.

14 Q. When you say -- strike that.

15 When you say that your reconstruction did
16 not have a grade effect, does that mean that you
17 functionally applied a grade of zero or flat as
18 you're analyzing the collision?

19 A. No. I didn't apply -- I didn't do that
20 calculation. I mean, I did a rough calculation here
21 to get a rough idea. This is one of those that was
22 updated of what kind of deceleration rate we were
23 looking at.

24 Q. What I'm trying to get at: Was there
25 anything about the grade that changed any of your

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1 analysis or conclusions about the collision that
2 would not apply to just a collision on flat gravel?

3 A. I don't think so. Nothing that comes to
4 mind.

5 Q. And did you measure the slope or grade at
6 the point of the collision?

7 A. I didn't measure it. I couldn't get out
8 there safely and do that. So we used the SCRT photos
9 and had them processed and you could extract the
10 grade from that.

11 Q. You inspected the F-250 and Escape that were
12 involved in this collision, right?

13 A. Yes, sir.

14 Q. And that was the next day, December 13 of
15 2022, right?

16 A. Yes, sir.

17 Q. Do you agree that you and Ms. Grimes both
18 attended that inspection?

19 A. Yes, sir.

20 Q. You took photographs of the vehicles?

21 A. Yes, sir.

22 Q. Performed 3- -- you and Ms. Grimes performed
23 3D scans of the vehicles?

24 A. Yes, sir.

25 Q. You observed the vehicles?

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1 A. Yes, sir.

2 Q. Was there anything else that you did at the
3 inspection of the F-250 and Escape?

4 A. We tried to locate the airbag control module
5 out of the Escape. We were originally told -- I
6 don't know if it was you or someone in your office
7 that it was there. And we looked throughout the
8 vehicle and couldn't find it, so we spent a lot of
9 time trying to track that down while we were there.

10 Q. Did you ultimately locate the airbag control
11 module for the Escape?

12 A. Yes. One of your experts had it.

13 Q. And were you able to download any
14 information off of it that you used in your analysis?

15 A. That particular module was not assessable by
16 the publicly available tool that we used, which is
17 the Bosch CDR tool. And so we made arrangements
18 through your office to obtain the module. And then
19 we sent it to a company called Veoneer and they
20 attempted a download.

21 And I think we produced that material to
22 everybody. But, essentially, there was no data in
23 that module which is what we expected, but we had to
24 look.

25 Q. Was there anything else that you -- strike

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1 that.

2 Did you do any other work at the inspection
3 that we haven't talked about?

4 A. Notes, photographs and scans. I mean -- and
5 observations.

6 Q. Did you weigh either of the vehicles?

7 A. We did not.

8 MR. MASHMAN: I'm going to hand you
9 Plaintiff's Exhibit 61 and 62, which are
10 your notes from the December 13, 2022
11 inspection of the two vehicles.

12 (Plaintiff's Exhibit 61 and Exhibit 62
13 were marked for identification.)

14 BY MR. MASHMAN:

15 Q. Did you take these notes using a Dictaphone?

16 A. Yes.

17 Q. And were these notes later transcribed by
18 someone in your office?

19 A. Yes.

20 Q. Do these notes capture all of your
21 observations of the two vehicles from that
22 inspection?

23 A. Probably not. I mean, these are the notes
24 that I took while I was there. But in going back
25 through photographs, there may be other observations.

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1 Q. Were there any other observations from your
2 inspection that informed your reconstruction that are
3 not included in these notes?

4 A. There's nothing that wouldn't be included in
5 these notes and the photos that I reviewed.

6 Q. Is there any particular piece of evidence in
7 the photos that you rely on for your reconstruction
8 that is not noted in these inspections?

9 A. Well, the overall damage, I mean, some of
10 that would also -- not just photos but the scans. We
11 use the scans to align the vehicles as they would
12 have been aligned at impact. So that's not in the
13 notes, but that's in the notes, photos, scans, all of
14 that type of material.

15 Are we done these?

16 Q. Yes.

17 A. Are we done with this?

18 Q. I can't see --

19 A. That's the scene notes --

20 Q. Yes we're done with the scene notes --

21 A. Okay. I'm just trying to keep my stack
22 organized.

23 Q. I appreciate that.

24 A. But hers isn't.

25 Q. Do you have an opinion about what model of

Page 111

1 kit was installed on Mr. Elliott's vehicle?

2 A. I don't. I know Mark went up online and
3 tried to get some information of what the lift kits
4 contained and we put that in our report as we
5 understand it. But I'm not looking at a specific
6 model or serial number or anything like that.

7 Q. Do you have any reason to disagree that
8 Rough Country sold this lift kit as a 4.5 inch lift
9 kit?

10 A. I have no information. I have no opinion
11 about that.

12 Q. Do you agree the lift kit was installed
13 properly?

14 A. I have no idea. I don't do lift kit
15 installation analysis.

16 Q. Is it your opinion -- strike that.

17 So I understand your answer to be that
18 you're not saying it was installed improperly, you're
19 not saying it was installed properly, you just don't
20 have an opinion either way; is that fair?

21 A. That's fair, yeah. I know the vehicle had a
22 lift kit.

23 Q. Did you form an opinion about how much the
24 Rough Country lift kit raised the front bumper of the
25 subject F-250?

Page 112

1 A. I didn't look at that specifically. I've
2 seen in Mr. Buchner's materials -- I think he said
3 like 5 and-a-half or 6 inches. I don't dispute that
4 it's certainly in that range, but I haven't measured
5 that specifically.

6 Q. So you don't have any disagreement with
7 Mr. Buchner's analysis of how much the Rough Country
8 lift kit raised the front bumper of Mr. Elliott's
9 F-250?

10 A. Well, I didn't look at the front bumper. I
11 looked at the frame rails. And it looks like, again,
12 it's about five to six inches, something like that.
13 Closer to six than to five, but I'm looking at the
14 bottom of the frame rail.

15 Q. You don't have any criticism of Mr.
16 Buchner's analysis on the amount of practical lift on
17 the front of the F-250?

18 A. I haven't looked at it specifically but as I
19 sit here, no.

20 Q. So you have no reason to disagree with his
21 conclusion about how much the lift raised the front
22 frame rail of the F-250?

23 A. As I sit here, no.

24 Q. Ms. Grimes performed a 3D scan of an
25 exemplar Escape on December 20th of 2022, right?

Page 113

1 A. Yes.

2 Q. And the purpose of scanning that exemplar,
3 as I understand it, was to create a baseline scan for
4 a nonimpacted Ford Escape; is that fair?

5 A. Yes.

6 MR. MASHMAN: And I'm handing you what's
7 been marked as Plaintiff's Exhibit -- strike
8 that.

9 I'm handing you what's been marked as
10 Plaintiff's Exhibit 64. I only have one
11 copy of this one, Rick.

12 MR. HILL: That's all right.

13 (Plaintiff's Exhibit 64 was marked for
14 identification.)

15 BY MR. MASHMAN:

16 Q. This is a series of pictures from your file
17 of what I understand to be the exemplar Escape.

18 Is that the exemplar Escape?

19 A. Yes.

20 Q. And based on these pictures, Ms. Grimes did
21 not weigh this vehicle; is that right?

22 A. That's correct.

23 Q. And Mecanica never bought or received this
24 vehicle, right?

25 A. This exemplar vehicle?

Page 114

1 Q. The exemplar vehicle.

2 A. No. No. We find them and pay the people
3 usually a hundred dollars to let us look at it
4 and document it.

5 Q. When you say people, whoever --

6 A. Whoever --

7 Q. -- owns -- I apologize.

8 A. No, no. It's my fault. You go ahead.

9 Q. Mecanica reached out to whoever the owner
10 was of that exemplar Escape, met them in the parking
11 lot where they were keeping it and scanned it; is
12 that right?

13 A. Photographed it and scanned it, yes.

14 Q. Was there any purpose of that other than to
15 create a baseline of the Ford Escape that had not
16 been impacted?

17 A. That was the primary purpose.

18 Q. Was there any other purpose?

19 A. Just to see what it looks like in general.

20 Q. So other than seeing what it looks like in
21 general and getting a baseline scan of a nonimpacted
22 Ford Escape, was there any other purpose for this
23 exemplar?

24 A. No.

25 Q. And Ms. Grimes also performed a scan of an

Page 115

1 exemplar F-250, correct?

2 A. Yes.

3 Q. Where was that exemplar located?

4 A. That's my truck.

5 Q. That's your truck?

6 A. Yeah. I didn't get the finder's fee; I'll
7 tell you.

8 Q. What model year of F-250 is it?

9 A. It's a 2016 F-250. It's a gasoline not
10 diesel.

11 Q. What trim?

12 A. Lariat.

13 Q. Was the purpose of this scan to create a
14 baseline of a nonimpacted F-250?

15 A. In general, yes.

16 Q. Was there any other purpose?

17 A. Again, just to document what they look like.

18 Q. I didn't see any photographs in the file or
19 any other reference to it.

20 Were pictures taken of the exemplar F-250?

21 A. They may not have been. It's my truck. I
22 mean, I can go photograph it at any time. I think it
23 was primarily scans.

24 Q. Would it surprise you that there weren't
25 photographs or were there photographs that aren't a

Page 116

1 part of your file that were taken?

2 A. I think that she probably did not take
3 photographs of it.

4 Q. Do you agree this truck was not weighed?

5 A. Right. Yeah, my truck wouldn't be
6 representative. I've got a lot of stuff in it, so...

7 Q. Other than to the extent that you personally
8 own it, do you agree that Mecanica never received
9 this truck; it went out and performed a 3D scan of
10 your truck?

11 A. Correct.

12 MR. MASHMAN: I'm probably at a decent
13 point if the lunch is here.

14 MR. HILL: Let me check on it.

15 (Discussion ensued off the record.)

16
17 THE VIDEOGRAPHER: The time is
18 12:55 p.m. We are off record.

19 (Recess from 12:55 p.m. to 1:41 p.m.)

20 THE VIDEOGRAPHER: The time is 1:41 p.m.
21 We're back on video record.

22 MR. MASHMAN: All right. I'm going to
23 hand you what's been previously marked
24 Plaintiff's Exhibit 63.

25 (Plaintiff's Exhibit 63 was marked for

Page 117

1 identification.)

2 BY MR. MASHMAN:

3 Q. Did you review this as part of this case?

4 A. It's probably part of our material. I don't
5 remember specifically looking at this as I sit
6 here.

7 Q. Do you recognize it as an order confirmation
8 for the subject lift kit?

9 A. That's what it looks like.

10 Q. It's item No. 567.20?

11 A. That's what it says. Yes.

12 Q. And it's sold as a 4.5 inch lift kit with
13 overloads. Do you see that?

14 A. Yes.

15 Q. It was shipped to Will Hollaway in
16 Georgia --

17 A. Yes.

18 Q. -- as a part of this case?

19 Did you ever install a lift kit on an F-250?

20 A. No.

21 Q. Including for testing? For measurements?
22 For any reason?

23 A. Correct.

24 Q. Okay. I didn't ask this earlier.

25 Have you ever had your testimony limited in

Page 118

1 any way as a result of a Daubert motion?

2 A. No. At least not that I know of.

3 Q. Have you ever had a motion to limit your
4 testimony granted with any respect?

5 A. There was. I don't think it had anything to
6 do with Daubert. It was many years ago in the
7 Chicago area.

8 Q. What was the nature of that motion?

9 A. The issue, as I understand it, was that at
10 the time in Illinois, if you had a witness testify
11 about some fact of the case, such as vehicle speed,
12 the judge could limit an expert talking about that
13 same topic.

14 So I was limited as a reconstructionist
15 coming in and talking about the speed of a vehicle
16 because they had witness testimony. And my client
17 ended up appealing that. And as I understand it, the
18 judge came back and ordered that not only can I
19 testify, but he directed I would testify and the case
20 settled.

21 Q. I think I wrote Chicago.

22 Is that where it was?

23 A. It was in the -- it wasn't Chicago, but it
24 was some little town there outside of Chicago.

25 Q. Do you remember approximately what year that

Page 119

1 was in?

2 A. I think it was probably mid- to late '80s.

3 I don't know. It was a long time ago.

4 Q. Do you remember any of the parties' names?

5 A. I know I was working for a trucking company.

6 It might have been Knight Transportation or Swift --

7 I think it was Knight Transportation.

8 Q. Was that in state or federal court?

9 A. I don't know.

10 Q. Other than that case from the Chicago area,
11 were there any other times that your testimony was
12 limited as a result of a motion?

13 A. Not that I'm aware of.

14 Q. Are there any other times that your
15 testimony has been limited by a judge?

16 A. Not that I'm aware of.

17 Q. As part of your analysis in this case, did
18 you talk to Mr. Pascarella at any time?

19 A. I don't think so because I don't know who
20 that is offhand.

21 Q. Did you rely on any of Mr. Pascarella's
22 conclusions in forming your opinions in accident
23 reconstruction?

24 A. I don't think so.

25 Q. Was Mr. Pascarella at the crash test that

Page 120

1 was done at Exponent?

2 A. I don't think so. I don't know who
3 Mr. Pasarella is as I sit here.

4 Q. So as you sit here, you don't know what any
5 of his opinions would be related to this case; is
6 that fair?

7 A. I think that's true. Yeah. Unless I know
8 him as some role in it, but I don't think I do.

9 Q. Did you review any prior crash testing or
10 safety testing that had been performed by Rough
11 Country as part of this case?

12 A. No.

13 Q. Do you know of any crash testing or safety
14 testing that Rough Country performed on its
15 products -- strike that.

16 Do you know of any crash testing or safety
17 testing that Rough Country performed on its lift kit
18 before releasing it for public sale?

19 A. No.

20 Q. All right. Did you measure the height of
21 the bottom edge of the subject F-250's C-Bracket at
22 the inspection?

23 A. Yes.

24 Q. And what measurement did you reach for that?

25 A. It's about 18 inches.

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1 Q. You say about 18 inches?

2 A. Well, on the left side -- the right front
3 tire was deflated and so we tried to level up the
4 vehicle as best we could. And the measurements that
5 I have, on the left side it was 18 and-a-quarter
6 inches. On the right side, it was 17 and 7/8ths
7 inches. I think there's a photograph of it.

8 Q. I'm looking at your report on page 20.

9 Do you see figure 22 there?

10 A. Yes.

11 Q. Does that show the measurements that you
12 were just talking about?

13 A. Yes.

14 Q. And you mentioned that the -- it looks like
15 the report says the left front tire was flat.

16 That should say right front tire --

17 A. I think it's the right front tire.

18 Q. You mentioned that the right front tire was
19 flat during the inspection.

20 It looks like there were two pieces of wood
21 placed under it to level it; is that right?

22 A. Yes. I measured to the bottom of the wheel
23 on the left side and then tried to put wood under on
24 the right side and -- to try to at least get it
25 approximately leveled.

Page 122

1 Q. Okay. And you agree, there was a little bit
2 of variance between the left and right measurements
3 of the C-Brackets, right?

4 A. There was. And it could be due to the
5 pickup not being fully level but also one of them was
6 distorted rearward, the C-Brackets, and one of them
7 was distorted slightly forward. They are very close,
8 about 18 inches.

9 Q. I apologize. You said they were very close,
10 about 18 inches?

11 A. Yes.

12 Q. Was the left front tire also deflated?

13 A. I don't think so.

14 Q. Did you agree with Mr. Buchner's
15 determination that the F-250's tow hooks were
16 approximately 30 inches from the ground?

17 A. I didn't look at that.

18 Q. I wanted to ask you about some of the
19 formatting of your report starting on page 19 and on
20 to page 20. There are sometimes where you use
21 italics and a series of bullet points.

22 Do you see what I'm referencing with that?

23 A. Yes.

24 Q. Is that to denote that these are
25 Mr. Buchner's observations and that you don't adopt

Page 123

1 them?

2 A. Yes.

3 Q. And then later there are sometimes where
4 there are not italics and bullet points related to
5 the EDR. Are these your observations?

6 A. No. Those are also from him as well. Later
7 on, we talked about the EDR as well.

8 Q. I'm referring to pages 20 and 21.

9 A. Yeah, 20, those were -- data was downloaded
10 20 ignition cycles later. They did that. We didn't
11 do that.

12 Q. It appears there's several times where you
13 list a series of observations from Mr. Buchner and
14 then only comment on some of them.

15 When the -- when you don't offer a comment
16 on one of the observations that Mr. Buchner made, is
17 it fair to say that you don't have a critique of that
18 observation?

19 MR. HILL: Object to form but go ahead.

20 THE WITNESS: I think it depends on
21 which one. I mean, I list them out to try
22 and get his -- the material from him out
23 there. I didn't go through and look at
24 every single one and say, Do I agree or do I
25 disagree with this? I was trying to put the

Page 124

1 information out that I retrieved from his
2 report.

3 BY MR. MASHMAN:

4 Q. So, for example, on page 19 there's a bullet
5 point that Mr. Buchner observed a gap between the
6 rear passenger seat and the hatch, which corresponded
7 to the trunk contents such as a Shop-Vac and folding
8 chairs in the vehicle.

9 Do you have any disagreement with that
10 observation?

11 A. Not specifically, no.

12 Q. Do you have any disagreement with the
13 observation that the Escape's static rear crush
14 damage extended forward to a depth of 3.66 feet?

15 A. I haven't measured it the way he did, but I
16 don't dispute that it's about that.

17 Q. Do you have any dispute Mr. Buchner's
18 observation of the Escape's rear occupant seat pushed
19 visibly forward from the impact?

20 A. No.

21 Q. Looking at the F-250 section on the same
22 page, page 19 --

23 A. Page 19? Okay.

24 Q. There's a comment where Mr. Buchner mentions
25 that the F-250 crush extended slightly further back

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1 on the right side of the vehicle.

2 Do you agree with that statement?

3 A. I think that that's true.

4 Q. Do you agree with the next statement that
5 two impact marks were present on the top of the hood
6 of the F-250 about 28 inches apart which corresponded
7 to the Escape's hatch hinges?

8 A. I don't know about the 28 inches. I know
9 it's going to be pretty close to that. And I would
10 associate those also with the hatch hinges on the
11 Escape.

12 Q. Meaning that you associate the marks on the
13 F-250 with the -- with contact with those hatch
14 hinges?

15 A. With contact from the Escape and more than
16 likely the hinges.

17 Q. The hinges, okay.

18 Okay. Looking at the vehicle weights.

19 A. Yes.

20 Q. What is your opinion about the weight of the
21 subject F-250 on the date of the collision?

22 I'll pass you Plaintiff's Exhibit 65 which
23 has some weight calculations from your file.

24 (Plaintiff's Exhibit 65 was marked for
25 identification.)

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1 THE WITNESS: Our calculation, our
2 estimation on it is that on the day of the
3 crash the vehicle would have weighed
4 approximately 8,833 pounds.

5 BY MR. MASHMAN:

6 Q. Can you -- can you walk me through how you
7 got to that number?

8 A. Sure. We started with an estimated curb
9 weight and then we add a driver, a car seat or cargo
10 seat -- I'm sorry, rear -- rear seat cargo.

11 There are beer cans. I don't remember if
12 there were bottles, but we don't know whether the
13 beer cans are empty or full or whatever. There's a
14 tool box. There's a back cover. There's a lift kit
15 and the large tires and things like that.

16 (Plaintiff's Exhibit 66 was marked for
17 identification.)

18 BY MR. MASHMAN:

19 Q. I'm going to hand you Plaintiff's Exhibit
20 66, which is your weights and vehicles document.

21 Do you recognize that?

22 A. Yes.

23 Q. You mentioned that you start with an
24 estimated curb weight. How do you get that number?

25 A. We looked at specifications in general, but

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1 we also looked at the weights of the two vehicles
2 that Charlie Crosby weighed after he bought them.

3 Q. So the estimated curb weight is determined
4 by looking at the specification of the subject
5 vehicle as sold and also the test vehicles when they
6 first came in to Exponent; is that fair?

7 A. Yes.

8 Q. How do you choose between those two if
9 there's any difference?

10 A. It's an estimate and we -- I think we came
11 up with 7850 is our estimate of how much it weighed.
12 It would have weighed curb without the cargo and
13 driver and so on.

14 Q. Then you add -- you mentioned you added the
15 driver's weight plus the rear seat cargo. And I
16 think that that's reflected on Plaintiff's Exhibit 66
17 how you got to that; is that fair?

18 A. Well, it's also in 65, the last page of 65.

19 Q. So the last page of -- all right.

20 A. Up at the top there.

21 Q. You added 170 pounds for Mr. Elliott's
22 weight.

23 A. And then car seat, rear seat cargo, a cover,
24 the tool box and so on. So we -- we estimate that
25 the total addition would be 6830.

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1 Q. How did you come up for the weights for the
2 car seat, rear seat cargo, cover and tool box?

3 A. We made estimates -- well, the tool box also
4 includes -- I think there was a chain saw and there
5 was something else in there that we just lumped
6 together. There's a tool box and there's some tools
7 in the back. We don't know what's in the tool box.
8 So we made that estimate.

9 Q. Did you weigh any of the cargo in the F-250
10 to make those estimates?

11 A. No.

12 Q. And it appears that there are -- there's a
13 series of searches on Google and Amazon of various
14 products for the Escape and the F-250?

15 A. Yes.

16 Q. Is it fair to say that's what you based your
17 weight estimates on for those products?

18 A. Yes.

19 Q. Did you use the same serial numbers for each
20 of the products as you looked up their weights --

21 A. No.

22 Q. -- for the exemplars?

23 A. No. We tried to look and figure out what
24 the items were and make estimates on them.

25 Q. So were any of the weights -- and this is

Page 129

1 for the F-250 and the Escape.

2 Were any of the weights of cargo that you
3 incorporated based on the weights of the actual cargo
4 that you weighed or weights of objects with the same
5 serial number?

6 A. No. I mean, they may -- the search may have
7 had the same type of serial numbers, but we weren't
8 looking at serial numbers. We were looking at here's
9 the product; here's about what it weighs.

10 Q. So it was an approximation based more or
11 less visually, looking for something of similar size,
12 shape and product?

13 A. It's an estimate that we made trying to look
14 at the same product.

15 Q. So you added that all together for the
16 F-250, came up to 683 pounds and then added that to
17 the 7850 curb weight and that's how you got the
18 weight of the F-250 on the day of the subject
19 collision; is that fair?

20 A. Give me just a second and let me make sure.

21 The other thing that you're not including on
22 that weight is the lift kit and the large wheels and
23 tires. And you'll see those towards the bottom of
24 the last page where we estimate the lift kit and
25 tires end up adding about 300 pounds.

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1 Q. Let me try again and see if I can get it
2 right.

3 The two numbers that I just mentioned, the
4 curb weight of 7850, plus the occupant plus cargo of
5 683, that adds up to 8,533 pounds; is that right?

6 A. Yes.

7 Q. And that is what you based the weight of the
8 crash test F-250 on; is that right?

9 A. Yes.

10 Q. And then you take that weight of 8,533
11 pounds and add -- I think you just said the estimated
12 weight of the lift kit and tires?

13 A. And wheels.

14 Q. And wheels; is that fair?

15 A. Yes.

16 Q. How did you get the estimated weight of the
17 lift kit, tires and wheels?

18 A. Mark did a search on those to try to
19 estimate what those types of wheels and tires and the
20 lift components would weigh.

21 Q. And what did he search?

22 A. He looked for the same model of wheel and
23 tire and got estimated weights on them.

24 Q. Do you know whether -- that's Mr. Leonard;
25 is that right?

Page 131

1 A. Yes.

2 Q. Do you know whether Mr. Leonard used the
3 same product number from the same manufacturer when
4 coming up with those weights?

5 A. I'm pretty sure he did. But as I sit here,
6 I can't -- can't swear to it. But, yeah, that's what
7 he would have tried to do for sure.

8 Q. For the other cargo, you include screen
9 shots in your file showing where those estimates come
10 from.

11 Is there anything like that showing where
12 Mr. Leonard is getting his estimates for the lift kit
13 or the wheels or the tires?

14 A. I don't think so. If it's not in this
15 document, then I don't think so.

16 Q. I might have asked this already.

17 Did you weigh the subject F-250 during your
18 inspection?

19 A. No.

20 Q. Can you walk me through how you came up with
21 the weight for the subject Escape?

22 A. Same way.

23 We had some specifications but also Charlie
24 Crosby weighed the two Escapes that we purchased.

25 And the one we ended up using for the test, we used

Page 132

1 the weight that he measured on that vehicle.

2 Q. So you took the weight for the test Escape
3 and added in estimates of the occupants and cargo --

4 A. Yes.

5 Q. -- is that fair?

6 And you got the estimates of the occupants
7 and cargo the same we just discussed by looking up
8 products, looking them up online and then adding them
9 up; is that correct?

10 A. Yes.

11 Q. Did you use the serial numbers when doing
12 that?

13 A. I don't think serial numbers were used. I
14 think they were looking for product names and models,
15 things like that.

16 Q. And I may have asked you this earlier.

17 Did you weigh the actual --

18 A. (Coughing.)

19 Q. I'll ask it again just to make sure that
20 I've got it clear.

21 Did you weigh the actual cargo that was in
22 the Escape after the collision?

23 A. No.

24 Q. How did you determine the weight
25 distribution of the F-250 and Escape?

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1 A. We made estimates of where the various cargo
2 would be located and did a moment arm analysis --

3 THE REPORTER: A what arm?

4 THE WITNESS: Moment arm.

5 THE REPORTER: Thank you.

6 THE WITNESS: -- analysis where you're
7 calculating the effect of where things are
8 and how that weight is distributed.

9 BY MR. MASHMAN:

10 Q. So a moment arm analysis, you take the
11 weight, the distance from the center of gravity and
12 with that you get one measurement?

13 A. Yeah.

14 Q. You add all that together to come up with
15 what the distribution would be; is that fair?

16 A. An estimate of that distribution, yes.

17 Q. Okay. And then you took that weight
18 distribution and used that to determine where to put
19 the ballast in the crash test vehicles to replicate
20 that; is that right?

21 A. Well, I didn't determine where to put the
22 ballast. That would have been Mr. Crosby. I gave
23 him the information that I was looking for.

24 Part of that conversation, I knew that he --
25 I knew that we were going to have trouble loading the

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1 Escape especially because we weren't going to put
2 cargo behind the rear seat. So that limited how much
3 weight we could get on the rear axle and not overload
4 different parts.

5 So I made the determination to have less
6 weight on the rear axle than what I believe was there
7 at the time of the crash.

8 And the effect of that was that it -- I
9 wanted to run the test and the configuration where I
10 wouldn't be subject to criticism that we artificially
11 lowered the bumper on the back of the Escape.

12 So we put -- I think it's, I don't know,
13 250, 300 pounds less on the rear axle than the
14 specifications that we think really were there. And
15 the effect of that -- might be 200 pounds.

16 The effect of that is that we're not
17 artificially lowering that rear bumper because I
18 don't want to make it easier to override.

19 And then we did the same thing on the Ford
20 pickup. We put a little bit more weight on the front
21 so that the bumper was -- if anything, it probably
22 doesn't make even a quarter inch difference. But if
23 anything, the bumper on the pickup is a little bit
24 lower and the bumper on the Escape is little bit
25 higher. So we're trying to make it where it's harder

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1 to override to avoid some of the criticism that we
2 knew would come.

3 Q. I was trying to get at specifically your
4 interactions with Mr. Crosby on this.

5 You took your estimated weight distribution
6 and gave that to Mr. Crosby with the intention he
7 would ballast it however necessary to replicate that;
8 is that fair?

9 A. Yes.

10 Q. Page 20 of your report mentions your
11 opinions related to Mr. Buchner's analysis of the
12 subject F-250's weight.

13 Do you see that?

14 A. Where on page -- oh, the middle of that
15 first paragraph?

16 Q. Yes.

17 A. Yeah. Eight thousand forty pounds?

18 Q. Yes.

19 A. Mm-hmm.

20 Q. You mentioned there's no indication of what
21 was in the vehicle or cargo area of the vehicle when
22 it was weighed.

23 Can you explain that opinion?

24 A. I didn't find anything in his report that
25 indicated what was in the vehicle when he weighed the

Page 136

1 vehicle, you know, like the chain saw, any of the
2 tools. You know, he weighed it at 8,040 pounds which
3 is a little lighter than what we feel it would have
4 weighed on the day of the crash.

5 Q. Did you review all of Mr. Buchner's file
6 materials, including his inspection photographs?

7 A. I did long ago, but yeah.

8 Q. Is there anything in particular that you
9 don't believe was included in Mr. Buchner's weight?

10 A. As I sit here, I can't point to anything. I
11 don't remember the -- like the -- I think there was a
12 chain saw and there was some other gas-powered tool.
13 I don't know what was in the tool box or anything --
14 you know -- as I -- I'm sorry.

15 As I sit here, there's not anything specific
16 that I'm pointing to and saying, See, look, he didn't
17 include this. I'm saying I don't know exactly what
18 he included. His weight is a little lighter than our
19 weight.

20 Q. Okay. Your report also mentions the affects
21 that fuel levels have on vehicle weight?

22 A. Yes.

23 Q. Let me ask you this.

24 For your weight estimate, how much fuel did
25 you account for?

Page 137

1 A. Full fuel. That would be curb, yeah.

2 Q. Okay. And do you know whether the F-250 was
3 at full fuel at the time --

4 A. I don't.

5 Q. Do you have any reason to believe that the
6 F-250's fuel level was different at the time
7 Mr. Buchner weighed it versus on the day of the
8 incident?

9 A. I have no idea what fuel was in it. I would
10 assume that whoever stored it drained the fuel just
11 for safety, but I don't know.

12 Q. And then for Mr. Buchner's estimate of the
13 Escape's weight, do you disagree with Mr. Buchner's
14 measured weight at 3,410 pounds?

15 A. Well, again, that's lighter than our weight.
16 He's measuring it -- I don't know exactly what
17 components are in there. I think he says that, you
18 know, the cargo was in there. I don't know if any of
19 the cargo had been removed by the people. I don't
20 know, the people obviously aren't in there, things
21 like that.

22 His weight there is 3410 and our curb was, I
23 think, 3451. So our curb no -- no cargo at all is
24 slightly heavier than that.

25 Q. Do you have any reason to believe that

Page 138

1 Mr. Buchner's inspection photographs don't show what
2 was in the Escape when he weighed the vehicle?

3 A. As I sit here, I haven't looked at that.

4 Q. Is there anything in particular you don't
5 believe he included in his weight or accounted for in
6 his weight that he should have?

7 A. As I sit here, no.

8 Q. You and Mr. Buchner agree on the maximum
9 delta-v for the collision as negative
10 18.21 longitudinally and negative .76 laterally,
11 right?

12 A. Well, that's what the airbag control module
13 says, but it depends on how you define the collision.
14 If you look at Part 563, it defines it very
15 specifically of when a collision is over. And we
16 talk about that in the report.

17 I agree that's what the CDR report shows.

18 Q. As the maximum recorded delta-v, right?

19 A. As the maximum throughout the -- the record,
20 yes.

21 Q. And this may be a basic question.

22 The -- a negative value longitudinally,
23 which way does that indicate the force is moving?

24 A. The vehicle is slowing down. It's being
25 pushed from the front.

Page 139

1 Q. And then same question laterally, is
2 negative --

3 A. Negative means --

4 Q. -- left or --

5 A. Negative would mean to the left.

6 Q. Meaning that the force is going from right
7 to left; is that correct?

8 A. That's my recollection. I was reading
9 through the airbag module data here to see if it says
10 and I don't see it offhand.

11 Q. But your --

12 A. But in general negative would be right to
13 left.

14 Q. And you reported -- I think you were getting
15 to this a moment ago. You reported the delta-v for
16 the subject collision at the time of 141 milliseconds
17 after times zero, right?

18 A. Can you ask that again, please?

19 Q. Yeah. And if there's something wrong with
20 the wording, please let me know.

21 You conclude -- scratch that.

22 You reported the delta-v for the subject
23 collision at the time of 141 milliseconds after times
24 zero; is that right?

25 A. Yes.

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1 Q. And you concluded that the longitudinal
2 delta-v was negative 17.48 and the lateral delta-v
3 was negative .4 --

4 A. Yes.

5 Q. -- is that correct?

6 A. And that's on page 27 of my report.

7 Q. Speaking earlier about conservative
8 assumptions in the context of weight distribution, do
9 you agree that Mr. Buchner's delta-v values are
10 higher than yours?

11 A. They are slightly, but I've got to tell you.
12 In my business -- I'm not going to speak for
13 Mr. Buchner -- I think that we're 38, 39. He's 40.
14 That's a match, I mean, for the Escape.

15 And same thing for the Ford F-250. I think
16 he's 17.8 or something. We're 17.5. There's a
17 difference there. To me it's not -- it's not real
18 significant.

19 Q. So for your purposes, you consider your
20 delta-v and Mr. Buchner's delta-v to be similar
21 enough to not impact the analysis; is that fair?

22 A. Right. Well, I give a range and his number
23 is within my range, so I can't disagree with it, you
24 know.

25 Q. So you sitting here today aren't critical of

Page 141

1 Mr. Buchner's delta-v estimations or believe that it
2 somehow negatively impacted his analysis; is that
3 fair?

4 A. I don't think it did. He doesn't give a
5 range, per se. But, again, our numbers are really
6 close and his numbers are within my range.

7 MR. MASHMAN: Okay. We were talking
8 about these documents earlier and I think
9 some of them have a corrected version now,
10 so I want to make sure I give you the right
11 versions.

12 I'm handing you Plaintiff's Exhibit 94.

13 BY MR. MASHMAN:

14 Q. Is this the corrected version of the
15 preliminary speed analysis that you did?

16 A. Yes, sir.

17 Q. And can you walk me through the calculation
18 here, what you were trying to find and what you
19 concluded?

20 A. Sure. What I was looking at was trying to
21 do a calculation of the post impact speeds of the
22 vehicle. I looked at it and said, you know, that's
23 the 150 to 155 feet. I made an estimate to have .2
24 to .25 Gs when I'm combining both of these masses.

25 And then the delta-v is the 18.6. That's

Page 142

1 from the CDR max. And I add that and it gives me a
2 speed of 48 to 52. And I looked at that. That's
3 within the range of what's being recorded by the CDR.

4 Immediate -- immediately below that, what I
5 do is take a mass distribution between the two
6 vehicles and then kind of calculate if -- if
7 they're -- if we're using approximately 50 percent of
8 available braking, that would generate about a .208
9 to a .267 to just kind of validate my number above
10 where it estimated .2 to .25.

11 Q. I have a couple of follow-ups.

12 A. Okay.

13 Q. You mentioned a speed estimate between 48
14 and 52 -- 48.1 and 52.2 --

15 A. Yes.

16 Q. -- miles per hour.

17 Q. Which vehicle is that for?

18 A. The Ford F-250.

19 Q. And is that at the time of the impact?

20 A. Yes.

21 Q. And then I'll admit you lost me a bit on the

22 Gs. Can you explain that again?

23 A. On the what?

24 Q. On your .267 Gs.

25 A. Sure. The -- I'm estimating the friction

Page 143

1 including the -- or the grade about .75 to .8.

2 Again, I'm making rough estimates here to try to make
3 sure I'm in the ballpark with all of these numbers.

4 I then take the rear weight of the Escape
5 and put it over the combination weight and the front
6 weight on the Ford front axle and combine it, divide
7 it by the combined weight and that gives me effective
8 deceleration rate, if you will, assuming the rear
9 tires on the Escape are essentially 50 percent
10 applied and the front tires on the Ford are
11 essentially 50 percent applied. That then gives me
12 an estimate, and estimated value of .208 to .267.

13 Q. And that's to estimate the deceleration rate
14 for the Ford Escape after the impact?

15 A. For both.

16 Q. For both?

17 A. Yeah. And that's what that combination is.
18 I'm trying to combine them assuming that they're
19 essentially stuck together or pushing on each other
20 the whole time.

21 Q. And the purpose of this preliminary speed
22 analysis calculation was to check the approximate
23 distance that they went before the point of rest; is
24 that fair?

25 A. No. Really, it was to check that I got a

Page 144

1 reported value of 51 in the CDR. And I do this, you
2 know, quick and dirty. This was done very early, I
3 think. And I get to forty-eight fifty-two. I'm
4 like, okay, I'm in the ballpark; I'm okay. I didn't
5 look at it further.

6 Q. I apologize. This is to check the reported
7 CDR value of the speed of the F-250 at time of
8 impact. And with this calculation you essentially
9 confirmed that or that it's close enough?

10 A. It's close enough. Yes, sir.

11 Q. Okay.

12 A. Are we done with that?

13 MR. MASHMAN: Yes. I think you updated
14 this one, too. I'm going to pass you
15 Plaintiff's Exhibit 95.

16 BY MR. MASHMAN:

17 Q. And this appears to be two calculations in
18 your file. On the first page, is this where you
19 adjusted the F-250's reported speed to account for
20 the tire size installed on the vehicle?

21 A. Yes.

22 Q. And you came up with the 51 MPH number that
23 we talked about a second ago?

24 A. Yes. And because it's a reported value,
25 it's plus or minus 4 percent, so you get a 49 to 53.

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1 Q. And this is the value that you were checking
2 in the calculations you did on the last exhibit we
3 were looking at --

4 A. Just to --

5 Q. -- is that right?

6 A. Just to make sure everything is consistent,
7 yes, sir.

8 Q. On the second page, this shows your
9 calculations for the approximate delta-v of the F-250
10 and the Escape, right?

11 A. Yes, sir.

12 Q. You apply a range of plus or minus
13 10 percent; is that right?

14 A. Yes, sir.

15 Q. And where's -- what's the basis for that
16 range?

17 A. Research has shown that the speed change
18 being reported by airbag control modules is accurate
19 to within about 10 percent. It's better than that,
20 so if you use 10 percent, you've got it within your
21 range.

22 MR. MASHMAN: All right. I'm going to
23 hand you Plaintiff's Exhibit --

24 THE WITNESS: Are we done with 95?

25 MR. MASHMAN: Yes.

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3 | BY MR. MASHMAN:

4 Q. I hand you Plaintiff's Exhibit 69, which is
5 your CDR analysis chart that was a part of your file?

6 A. Yes.

7 Q. On page 3 there is a speed of impact table.

8 A. Yes.

9 Q. Can you walk me through that table?

10 A. Sure. The -- what we have is the last
11 recorded speed at times zero. And what we know is
12 that the collision happens shortly after that.

13 This is taking the absolute extreme that
14 because the driver was on the brakes at times zero --
15 hold on. Let me say it more precisely. Give me just
16 a moment here.

If you look at page 78 of the CDR download.

Q. Give me one moment to get there.

19 A. Mine actually says 78 of 195. It's in the
20 appendix on my report.

21 Q. My page numbers are slightly cut off. Can
22 you describe --

23 A. Page 6 there's -- in the middle of the
24 page -- do you see a page 6?

25 Q. Yes. I'm there.

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1 A. So this is -- it's showing 50 miles an hour
2 at times zero. So times zero in this case is
3 basically algorithm enabled, but it could have
4 occurred shortly after this. Okay? We don't know
5 exactly when it occurred.

6 So back to Exhibit 69, what -- what we're
7 doing here is taking the absolute extreme and saying,
8 well, could there be a little bit more braking during
9 that time? And that gives us the absolute low end
10 here of the 43.9 and then assuming the high end would
11 be, what, 55.6, I think.

12 Q. And that's the low and high end of the speed
13 of the F-250 at the time of impact?

14 A. Yes. Assuming those types of things, which
15 I don't believe are true. I don't think there was
16 significant braking effort, but this was the extreme
17 that we did early on to get a feel for all the
18 numbers that we were dealing with.

19 Q. So the braking we're talking about is that
20 the CDR indicates that Mr. Elliott applied his brakes
21 sometime in the last .5 seconds before impact; is
22 that correct?

23 A. Yes.

24 Q. And --

25 A. And we don't know -- I'm sorry. We don't

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1 know two things. We don't know when and we don't
2 know how much.

3 Q. You have your second row in the speed at
4 impact chart. It says: Correction for braking,
5 miles per hour?

6 A. Yes.

7 Q. And that's based on .5 seconds of braking I
8 assume; is that right?

9 A. No. Well, you see it's a percent. It's a
10 slip.

11 Q. Okay.

12 A. So what we're assuming is that the speed
13 being shown is -- do you know how ABS works.

14 Q. Why don't you remind me?

15 A. ABS anti-brake -- antilock braking system
16 slows the wheel. And so as the vehicle is going down
17 the road under hard braking, the wheel is going
18 slightly slower over the ground than the vehicle is.

19 Research has shown that a reasonable loss on
20 passenger cars is about five percent. So what this
21 does is, say, if the vehicle speed was 50 miles an
22 hour, if there was a lot of slip going on there, it
23 actually could be 50 plus five percent of that which
24 would have -- so it could be 52.5.

25 Q. Is that the third row of this chart, the

Page 149

1 correction for ABS braking?

2 A. Yeah. Isn't that what we're talking about?

3 Q. I was asking about the second row.

4 A. I apologize.

5 Q. So correction for braking and it says

6 .5 seconds next to time --

7 A. Yes.

8 Q. -- is that correct?

9 A. Yes.

10 Q. And it says .7 next to braking, parenthesis,

11 G. What is that?

12 A. Deceleration rate. An estimated
13 deceleration rate.

14 I apologize. I misunderstood your question.

15 Q. So that estimates that given a half second
16 of braking and .7 Gs of braking, the speed would have
17 been reduced by 7.7 miles per hour; is that right?

18 A. It could have been at the maximum. Yes,
19 sir.

20 Q. And that reduction of speed wasn't applied
21 to the crash test; is that correct?

22 A. It was not. No.

23 Q. And the crash test, there was no braking
24 applied to that 250, right?

25 A. After the crash there was, it was not

Page 150

1 before. We have to stop the vehicle after the crash.

2 Q. Understood.

3 A. But not before impact. There was no braking
4 before impact.

5 Q. There was no braking before the F-250 hit
6 the Escape in the crash test, correct?

7 A. That's correct.

8 Q. And then after the crash test, the brakes
9 were applied remotely just to stop the F-250 from
10 continuing to run away down the track, right?

11 A. Yes.

12 Are we done this?

13 Q. I'm figuring that out.

14 A. Okay. I'm not hurrying you.

15 Q. I wanted to ask you about page 1.

16 A. Okay.

17 Q. What is -- is this a calculation done for
18 the crash test?

19 A. No. This was early on in our analysis of
20 getting all the information together. So you can see
21 where at that point I was estimating the vehicle, the
22 pickup at 8800 pounds, the Escape at 3900 pounds, the
23 51 miles per hour.

24 And what you can do is calculate the speed
25 change shown. And you're seeing that here it's

Page 151

1 showing a speed change on the pickup, which would be
2 17.2. And the issue is if you drop the speed at
3 impact significantly, that delta-v goes down as well.
4 And so that's why I don't think there was a lot of
5 braking pre-impact.

6 Q. Okay.

7 A. Are we done with that now?

8 Q. Yes, yes.

9 You included several handwritten witness
10 statement from the date of the collision in your
11 report.

12 A. Yes.

13 Q. Did you rely on those witness statements to
14 form any of your substantive opinions about the
15 collision's reconstruction?

16 A. Not really. It was more to just give the
17 context of what was happening.

18 Q. So it's --

19 A. Of the environment.

20 Q. I apologize.

21 It's to give context and color, but it
22 doesn't inform any of your ultimate opinions about
23 the reconstruction; is that fair?

24 A. I'm not sure about the color comment, but,
25 yeah, to just give context to -- to the event.

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1 Q. Okay. In your report you make a point about
2 the difference between referring to the CDR relative
3 to airbag deployment versus algorithm enable?

4 A. Yeah.

5 Q. Do you have any substantive criticism of
6 Mr. Buchner or Mr. Roche's opinions based on that
7 language?

8 A. Not specifically, no. Just -- it's a
9 detail.

10 Q. And you agree that Mr. Buchner and Mr. Roche
11 both acknowledged that the subject F-250's airbags
12 didn't deploy, right?

13 A. That's correct.

14 Q. Page 23 of your report, you discuss
15 Mr. Buchner's moment calculations?

16 A. Yes, sir.

17 Q. And I take your point there to be
18 Mr. Buchner's methodology for momentum calculations
19 is acceptable as long as he accounted for the
20 occupant and cargo weights. Is that a fair summary?

21 A. Yes.

22 Q. Do you have any opinion about whether
23 Mr. Buchner accounted for those?

24 A. You know, I think that his ratio is probably
25 close to my ratio because our delta-v are about the

Page 153

1 same. So we may be off a little bit. That doesn't
2 bother me, per se, about his delta-vs. He's a little
3 higher than I am, but he's within my range, so...

4 Q. So you're not saying that Mr. Buchner's
5 momentum calculation was wrong in any way. You're
6 just pointing out that he needs to make sure that
7 he's accounting for those two things; is that fair?

8 A. Correct.

9 Q. Your report raises the issue of whether the
10 Bryson family's Escape was stopped at the time of
11 impact.

12 Do you agree it was either stopped or
13 virtually stopped?

14 A. Yes.

15 Q. How many times have you used crush analysis
16 to calculate the speeds of vehicles?

17 A. Hundreds. You're looking at crush energy to
18 get delta-vs and then look at closing speeds. Crush
19 itself doesn't give you speeds. It gives you closing
20 speeds and delta-v.

21 Q. When you do that, how do you use the crush
22 analysis to calculate the closing speeds and delta-vs
23 of the vehicles?

24 A. You use the crush along with appropriate
25 stiffness coefficients and weights and calculate the

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1 energy dissipated in crushing the vehicles. And then
2 distribute that across the two masses because they
3 will -- it will distribute based upon the ratio of
4 the masses. And I that will give you a delta-v and
5 you can use that same type of thing to calculate a
6 closing speed.

7 In this case, assuming the Escape is
8 essentially stopped or moving very slowly, then that
9 would also be travel speed.

10 Q. And on page 23 of your report, you critique
11 Mr. Buchner's crush calculations.

12 Can you explain your critique?

13 A. Specifically about using the SIMON model?

14 (Reporter clarification.)

15 BY MR. MASHMAN:

16 Q. The paragraph before that.

17 A. Yeah. Again, I don't know what crush
18 profiles he's using and I don't know the specifics of
19 the stiffness.

20 There's actually an SAE paper that talks
21 about doing that type of thing where you vary the --
22 the amount of crush at different levels across the
23 back of a vehicle that has had override on it. And
24 it discusses using -- that you get pretty good
25 results if you use a hundred percent of the crush on

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1 bumper and then about 50 percent above that, but you
2 then have to reduce the stiffness of that.

3 And that's the challenge is how stiff is it
4 when you don't really have a lot of testing that
5 doesn't include the bumper. So there's an SAE paper
6 talking about doing that type of thing. And that's
7 what I mention there is that in this approach damage
8 energy can be estimated by using a hundred percent of
9 the energy at the bumper, 50 percent of the energy
10 above the bumper.

11 Again, the problem is different parameters
12 of the collision, the stiffness and things like that
13 that have to be adjusted. And you have to be -- you
14 have to base those stiffness values on something,
15 some basis for them.

16 Q. Do you -- I have a couple of -- limited
17 questions about that.

18 You reference an SAE paper. Is that the
19 2001 SAE paper in your file?

20 A. I thought it was -- no, you're right. Jeff
21 Croteau and Werner, yeah. 2001-01-1170 --
22 2001-01-1170.

23 Q. Your criticism of Mr. Buchner's crush
24 calculations, do you agree that's based on the
25 premise that his stiffness coefficient would not be

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1 appropriate in an override collision?

2 A. It would not be appropriate to use the
3 stiffness of the bumper system on an override, but
4 you can derive stiffnesses for the other components
5 without the bumper. I just don't think he did that.

6 Q. What I'm trying to get at is: Is your
7 criticism limited to an override scenario on this
8 point?

9 A. That -- the general technique is you have to
10 have stiffness values that are appropriate. That
11 goes across all crash analysis but specifically this
12 one.

13 Q. Would you disagree with Mr. Buchner's
14 stiffness coefficients if there was not an override
15 scenario?

16 A. Probably not. I'd have to look at his
17 stiffness coefficients and where he got them and what
18 he's doing with them, but probably not.

19 Q. And what is your basis for referring to the
20 collision between a nonlifted version of Mr.
21 Elliott's F-250 and a Ford Escape as an override?

22 A. I don't understand your question.

23 MR. HILL: Yeah. Object to the form.

24 BY MR. MASHMAN:

25 Q. Mr. Buchner's crush calculation, he was

Page 157

1 calculating -- scratch that.

2 A. If you point to a certain thing in my
3 report that you're trying to talk about --

4 Q. I'm on the same paragraph. The second
5 paragraph on page 23, you state: The problem with
6 predicting the amount of deformation in a crash with
7 different parameters is whether the dynamics of the
8 collision will result in an override or not.

9 Did I read that correctly?

10 A. You did.

11 Q. What is the basis for referring to the
12 calculation that Mr. Buchner was performing as a
13 calculation involving an override?

14 A. Because I don't see where he reduced the
15 stiffness and because it's -- because there's an
16 override, you have to account for the bumper
17 deformation and the other deformation.

18 Q. I think we're talking past each other a
19 little bit.

20 A. Okay.

21 Q. You said where there's an override you have
22 to account for that.

23 Q. What's your basis for saying there's an
24 override here?

25 MR. HILL: Object to the form.

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1 THE WITNESS: Because the F-250 overrode
2 the bumper on the Escape in the crash.

3 BY MR. MASHMAN:

4 Q. You're talking about the subject crash?

5 A. Yes. That's what we're talking about here.

6 Q. Okay. I understand. And then your next
7 paragraph discusses HVE and SIMON simulation; is that
8 right?

9 A. Yes.

10 Q. And your criticism of Mr. Buchner's use of
11 HVE also is because in your opinion this is using HVE
12 in what you consider an override collision, correct?

13 A. Yes. And you can use HVE in an override
14 collision; you can do that.

15 The problem that I have with what Mr.
16 Buchner did is he's using a model that was derived
17 for use of looking at an end condition, if you will,
18 that is the crush on a real vehicle and modeling
19 different aspects of that to figure out speed.

20 What Mr. Buchner is doing is using the SIMON
21 model to predict an outcome when he doesn't have a
22 basis to compare to.

23 Whenever you're running a simulation, you
24 put in initial conditions and you predict a final
25 condition. And the way you know you're reasonably

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1 close is that you match the final condition.

2 But Mr. Buchner doesn't have a final
3 condition to compare it to. So it's an improper use
4 of the software.

5 The DyMesh model is -- is a mechanical
6 shell. If you think about -- are you comfortable
7 talking about vertices and meshes?

8 Q. I am not.

9 A. Simplest form. Think about three tennis
10 balls.

11 Are you a tennis player?

12 Q. (No audible response.)

13 A. Are you a golf ball player?

14 Q. (No audible response.)

15 A. You don't get out of the office much.

16 Q. No, I don't.

17 A. Imagine three golf balls in space and they
18 are connected by strings, if you will. Okay? That
19 forms a surface. Okay?

20 Now, cover the vehicle with that. And each
21 one of these, you know, three corner triangles,
22 whenever you combine them all, it's a mesh. But it's
23 infinitely thin and that's why it's called a shell;
24 there's no thickness to it.

25 The way the DyMesh model works is each

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1 vehicle has these little tennis balls or golf balls
2 or whatever. They are connected by lines that can
3 neither push nor pull.

4 And the way it works is it looks at a
5 vehicle where -- the terminology is a master vehicle
6 and a slave vehicle. And when's it's the master
7 vehicle, it looks at one of the golf balls on one
8 vehicle, let's say just for example, the Ford F-250
9 and how it interacts with a given triangle on the
10 Ford Escape.

11 And if there's penetration, it moves the
12 golf ball out to where it's on the surface, but it
13 moves it relative to the velocity vector of that ball
14 relative to the vehicle and it moves it back out to
15 the surface. And it does that across the whole
16 thing, across the whole surface.

17 It then swaps the vehicles so that the other
18 vehicle becomes master and the first one is slave and
19 it does again, and it swaps them again and does it
20 again and it swaps them so it effectively does it --

21 THE REPORTER: Slow down, please. Thank
22 you.

23 THE WITNESS: It effectively does it
24 four times.

25 The issue is that when it's moving these

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1 individual golf balls that make up the mesh,
2 what we would call a vertices or a vertex --
3 that vertex, if I move a certain vertex, it
4 cannot pull or push any other vertex. The
5 mathematical formulas are just not there.
6 That's not what it's made for.

7 The effect of that is that whenever
8 you -- whenever the vehicles interact, it
9 cannot push down and pull surrounding the
10 material with it, so you can't get
11 distortion and induced damage.

12 It's okay to look at a crashed vehicle
13 where you have crush and say I'm going to
14 try and model that crush with appropriate
15 stiffness coefficients, vehicle motion and
16 things like that. That's what SIMON is made
17 for and it does a great job for that, but it
18 is not appropriate to blindly say, I'm going
19 to crush one vehicle into another and
20 accurately predict the crush profile because
21 there's no mechanism inside the model --
22 there's no mathematical formulas to handle
23 the one vehicle overriding the other. It
24 just -- there's no math there to do it. So
25 it can't be done. And there's so many

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1 little permutations that take place. It's
2 just inappropriate to do.

3 So it would be the same thing in
4 accident reconstruction. We deal with where
5 a vehicle comes to rest and we work
6 backwards to try and figure out its speed at
7 impact. We know the final condition. We
8 know where it is. And we know the speed is
9 zero because it's stopped there, right?

10 In accident reconstruction, we typically
11 work backwards to then figure out impact
12 speeds. We then go simulations and we input
13 initial conditions, the speed, the offset
14 here, the CG height, the specifications, the
15 weights, you know, things like that. And we
16 have it predict an outcome and it's really
17 good at that, but we have something to
18 compare to at the end.

19 And so we may run it over and over and
20 over until we match final or end conditions.
21 And that's how we know we're reasonably
22 close is we're matching a final condition.

23 That's -- that's really a requirement
24 for running a simulation in a case like this
25 of you need something to match to at the end

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1 and that doesn't exist here.

2 BY MR. MASHMAN:

3 Q. Can you provide any documents that support
4 your opinion that Mr. Buchner needed to perform a
5 crash test to validate his simulation?

6 MR. HILL: Object to form. Misstates
7 his testimony.

8 THE WITNESS: Well, the -- there's no
9 document, per se, other than an
10 understanding of how the DyMesh model works.

11 BY MR. MASHMAN:

12 Q. Is it your opinion that no one can use the
13 simulation software Mr. Buchner used to predict crush
14 unless they perform a crash test to validate it?

15 A. You don't have to have a crash test to
16 validate a simulation but you have to have some type
17 of end condition that, in other words, you know that
18 override did occur.

19 Like our crash test, you could take HVE and
20 SIMON and probably replicate our crash test because
21 you have an end condition to match to. But the
22 software that we use in accident reconstruction
23 assumes that you have that end condition and that
24 you're not blindly predicting something.

25 Q. In your opinion, can you use SIMON to

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1 predict crush if there is no override?

2 A. Sure.

3 Q. How do you define "override"?

4 A. Where one -- part of one vehicle rides up on
5 top of part of the other one. And our crash test
6 clearly shows that that happens.

7 And that's the problem, if you're going to
8 run HVE and you're going to assume no override, then
9 you're going to get a result like Mr. Buchner got,
10 but it's inappropriate because our crash test clearly
11 shows -- I think that it's really just the magnitude
12 of the speed we're dealing with here. Fifty miles an
13 hour with an F-250 just overwhelms the back of the
14 Ford Escape.

15 But the crash test clearly shows that even
16 in that situation without a lifted vehicle, that
17 there's override. And the HVE SIMON model using
18 DyMesh simply cannot be used to predict that. You
19 have to know that that happened and try to model it.

20 Q. On page 22 of your report --

21 A. Yes.

22 Q. -- you note that Mr. Buchner used an
23 exemplar F-250 with different tire sizes from the
24 recommended tire size for the subject F-250 --

25 A. Yes.

Page 165

1 Q. -- correct?

2 A. Yes.

3 Q. Do you have any criticism of the methodology
4 Mr. Buchner used to account for that difference in
5 tire size?

6 A. Not as I sit here. I think if he
7 acknowledges that it was a different tire -- I
8 noticed that on the material that I got last night,
9 he had changed the tires out on his HVE run.

10 Q. Sitting here today, you have no criticism of
11 Mr. Buchner's materials earlier in the way that he
12 accounted for tire size, do you?

13 A. I don't know that he did account for it in
14 his HVE one. So you need to account for the proper
15 tires.

16 Q. If he did account for the proper tires and
17 used that to inform his inputs, you would have no
18 issue with the tire size, correct?

19 MR. HILL: Object to the form. Go
20 ahead.

21 THE WITNESS: The tire size is not the
22 main issue here. The main issue is the
23 DyMesh model is not made to blindly predict
24 crush.

25 BY MR. MASHMAN:

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1 Q. Have you ever heard of the term "safety
2 cage"?

3 A. Yes.

4 Q. What is a "safety cage"?

5 A. When I think of a safety cage, I think of --
6 on a vehicle, like a roll cage type thing for racing.
7 I've also seen structures. We have some -- some
8 devices where we test air brake system, air brake
9 chambers and we put like Kevlar cages around that in
10 case something -- a safety cage is just to prevent --
11 at least that's the way I'm thinking of it as I sit
12 here.

13 Q. Is it fair to say that the structure around
14 the occupant compartment in a vehicle should act as a
15 safety cage for people in the car?

16 MR. HILL: Object to the form. Go
17 ahead.

18 THE WITNESS: You know, I don't know if
19 that's true. It probably is. I'm not an
20 automotive designer.

21 BY MR. MASHMAN:

22 Q. All right. On page 24 of your report --

23 A. Yes, sir.

24 Q. -- you critique Mr. Roche referring to the
25 subject F-250's trim level as a King Ranch instead of

Page 167

1 a Lariat?

2 A. Yes.

3 Q. Do you have any substantive criticism of
4 Mr. Roche's vehicle compatibility defect or crash
5 worthiness opinions based on that decision?

6 A. Not based on that, no. It's really more the
7 report that he basis things on. It doesn't include
8 many F-250s and so he's making a lot of statistical
9 statements that really don't include many F-250s of
10 this vintage.

11 Q. I think -- are you referring to that SAE
12 paper that you cite in your report?

13 A. Yes. That he also cites.

14 Q. Did you review subsequent SAE paper to
15 determine whether there was a difference in the
16 probability of deployment thresholds as published in
17 later dates?

18 A. I haven't.

19 Q. Do you agree that the airbag did not deploy
20 in the lifted F-250 that Mr. Elliott was driving?

21 A. That's correct.

22 Q. Do you agree that the airbag did deploy in
23 the unlifted F-250 used in the Exponent crash test?

24 A. Yes.

25 Q. On page 26 --

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1 A. Yes, sir.

2 Q. -- you have a series of opinions about
3 Mr. Lewis' analysis in this case?

4 A. Yes, sir.

5 Q. You're not providing any opinions about
6 Mr. -- about Cohan's injuries, right?

7 A. I'm am --

8 Q. You're not giving --

9 A. -- not, no sir.

10 Q. I apologize.

11 You're not giving an opinion about injury
12 causation?

13 A. That's correct.

14 Q. You're not giving an opinion about
15 biomechanics?

16 A. Correct.

17 Q. And you don't hold yourself out as an expert
18 in biomechanics?

19 A. That is correct.

20 Q. Your opinions about Mr. Lewis' analysis
21 relate only to accident reconstruction?

22 A. Yes, sir.

23 Q. In section one you have it as .1 in the
24 indented portion. Do you see where I'm looking?

25 A. Yes, sir.

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1 Q. Your critique is that Mr. Lewis relied on
2 Mr. Buchner's reconstruction to determine the degree
3 of intrusion of a nonlifted vehicle; is that fair?

4 A. Yes.

5 Q. And that's the same point you make in
6 section 1.21 and 1.24, right?

7 A. Yes, sir.

8 Q. In section 1.10, you critique the
9 information that Mr. Lewis gave about the exemplar
10 car seat he used?

11 A. Yes.

12 Q. Your report states that the manufacture date
13 of the car seat should have been provided, right?

14 A. Yes. And I just didn't see it in his
15 report.

16 Q. Did you review Mr. Lewis' file materials?

17 A. I didn't.

18 Q. Your report also states that Mr. Lewis
19 should have provided the VIN number, year, make and
20 model of the exemplar Escape?

21 A. Yes.

22 Q. Did you review his file materials to see if
23 he did that?

24 A. I did not. I just reviewed his report --
25 well, that's not fair. I looked through his

Page 170

1 material, but because I wasn't really looking for
2 details, it wasn't I something I saw in my cursory
3 review of things.

4 Q. What I'm trying to get at, if he had taken a
5 picture of the VIN, would that have been enough?

6 A. Sure.

7 Q. Did you help design crash testing in this
8 case?

9 MR. HILL: Object to form but go ahead.

10 THE WITNESS: What do you mean by
11 "design"?

12 BY MR. MASHMAN:

13 Q. Did you contribute to the discussion of how
14 it would be performed?

15 A. Yes.

16 Q. When did those discussions take place?

17 A. Within the two, three, four months before
18 the crash test.

19 Q. And you attended the crash testing, right --

20 A. Yes.

21 Q. -- as well as Ann Grimes and Mark Leonard
22 from your office --

23 A. Yes.

24 Q. -- is that right?

25 Was anybody else from your office present at

Page 171

1 the crash test?

2 A. No.

3 Q. And who else was there?

4 A. All of the Exponent staff and an attorney
5 from Mr. Hill's office.

6 Q. Was Dr. Nguyen there?

7 A. Oh, yes, yes. Thank you. She was.

8 Q. How many Exponent staff were present
9 approximately?

10 A. I don't know. Five or six. You know, I'm
11 running cameras and setting up things. There may
12 have been 10. I don't know.

13 Q. Did you make any changes to the crash test
14 setup on the day of the test?

15 A. No.

16 Q. Was the purpose of the crash test to
17 recreate the subject collision if the F-250 had not
18 been lifted?

19 A. It wasn't really to recreate it. It was to
20 explore what type of intrusion would occur without
21 the lift kit on the vehicle. We're not trying to
22 recreate it because we don't have cargo in the back.

23 Q. The purpose of it was to isolate how
24 different the intrusion would be had the F-250 not
25 been lifted; is that fair?

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1 A. That was one goal, yeah. And for me, that
2 was the primary goal was to -- to look at if we make
3 the test as simple as we can with a nonlifted
4 vehicle, but we want to match as closely as we
5 reasonably can the speeds, the weights, the offset,
6 the angles; things like that. We want to match all
7 of that as much as we can.

8 But we don't have cargo in the vehicle, so
9 I'm not going to say we're trying to recreate the
10 crash. We're looking at what type of intrusion is
11 going to happen without a lift kit on the pickup
12 truck.

13 Q. Why do you want to match the speeds, weight,
14 offsets and angles?

15 A. So that we can -- I can come to the
16 conclusion that the lifted -- the lift kit on the
17 pickup didn't affect significantly the amount of
18 intrusion that would have occurred.

19 Q. If the speeds, weights, offsets and angles
20 weren't matched, are you saying that you wouldn't be
21 comfortable coming to that conclusion?

22 MR. HILL: Object to form.

23 THE WITNESS: I think there's a range
24 for all of those things and we want to be
25 within that range.

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1 BY MR. MASHMAN:

2 Q. But the goal of matching is so that you can
3 reasonably say as a scientific principle that the
4 difference in height is what resulted in the
5 difference of intrusion; is that fair?

6 MR. HILL: Object to form.

7 THE WITNESS: Or didn't. Yeah, yeah.

8 We want to be able to draw conclusions.

9 BY MR. MASHMAN:

10 Q. And the way to do that is to isolate the
11 variable that you're changing; is that fair?

12 A. Well, we're -- the way to do it for what we
13 did is to run the simplest test we could for a pickup
14 to match the key components of the crash without a
15 lifted truck.

16 Q. Why didn't you run a second crash test with
17 all of the cargo directly behind Cohan as a worst
18 case scenario to see how it affected the intrusion?

19 A. Because we didn't know exactly where the
20 cargo was and I didn't to subject myself to the
21 criticism of you had the bag of clothing in the wrong
22 place or you had the Shop-Vac in the wrong place or
23 whatever.

24 And really more importantly is Dr. Nguyen
25 looked at the actual vehicle and said it was

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1 sufficient for her needs and that's really what drove
2 the decision for me.

3 Q. So is it fair to say that it was Dr.
4 Nguyen's decision not to put the cargo in the crash
5 test?

6 A. That's not what I said. The -- Dr.
7 Nguyen -- and I'll let her speak for herself. But
8 it's my understanding that after the first test, Dr.
9 Nguyen did not feel that there would be any benefit
10 to running a second test trying to place cargo when
11 we really didn't know where the cargo was.

12 The test went off well, so there was no
13 reason to run a second test.

14 Q. Did you tell Exponent to put an exemplar car
15 seat in the same position Cohan was in for the crash
16 test?

17 A. No.

18 Q. Why not?

19 A. Because Dr. Nguyen didn't feel it was
20 necessary for her purpose.

21 Q. Did Dr. Nguyen ever suggest the idea of
22 putting a child's car seat in the same position Cohan
23 was in for the crash test?

24 A. I don't remember her ever talking about
25 that. She may have. It -- because the ultimate

Page 175

1 decision was to not do it, I don't remember -- I
2 don't remember her doing it. I'm not going to say --
3 if she comes in and says, yeah, I talked about it,
4 okay, fine, I don't remember her talking about it
5 though.

6 Q. Did anyone ever discuss the idea of putting
7 an instrumented crash test dummy in a car seat in the
8 crash test?

9 A. We talked about that early on and, again,
10 Dr. Nguyen indicated she didn't feel it was
11 necessary. I know there was also some concern about
12 the testing device size and weight and having to use
13 a smaller one and scale it.

14 There were complications. And so we decided
15 to make the test as simple as possible and not do
16 that. And Dr. Nguyen felt like that was all she
17 needed for her purposes.

18 Q. Did anyone ever discuss ever putting any
19 kind of dummy in a car seat in the crash test?

20 A. Yeah. Early on we talked is there a reason
21 to do it? And Dr. Nguyen kind of indicated she
22 didn't think there was.

23 In addition to that complication that it
24 could cause, the decision was made to not do. That
25 but it was Dr. Nguyen's recommendation that she

Page 176

1 didn't need it that really drove that -- that
2 decision.

3 Q. Did anyone ever suggest putting an adult
4 crash test dummy in the front driver's seat?

5 A. Not that I recall.

6 Q. Can you -- I apologize.

7 How did you select the vehicles used in the
8 crash test?

9 A. Charlie Crosby and Exponent located those
10 vehicles and purchased them.

11 Q. Is it important to have vehicles with
12 similar structural characteristics in a crash test?

13 MR. HILL: Object to form but go ahead.

14 THE WITNESS: Of the structures that
15 we're interested in, sure.

16 BY MR. MASHMAN:

17 Q. Do you agree that vehicles with different
18 structural characteristics could perform differently
19 from the subject crash?

20 MR. HILL: Object to form.

21 THE WITNESS: I guess it would depend on
22 what the structural difference is. If it's
23 something that's away from the crash zone,
24 it doesn't have significant effect on the
25 overall structure, then it wouldn't matter.

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1 BY MR. MASHMAN:

2 Q. Your report mentions a VIN analysis
3 performed to determine the F-250 and Escape used in
4 the crash test?

5 A. Yes.

6 Q. Can you briefly walk me through what you
7 were looking at?

8 A. We simply looked at the VINS of the two
9 vehicles used in the test compared to the VINS of the
10 vehicles involved in the actual crash and highlighted
11 the differences. One of them was different by the
12 factory and I think the other one was simply a check
13 digit and serial number.

14 Q. Aside from comparing the VIN numbers --
15 sorry, scratch that.

16 VIN numbers represent differences with
17 respect to 17 categories that are represented by the
18 number; is that fair?

19 A. Yes.

20 Q. And they don't tell you anything outside of
21 those 17 categories; is that fair?

22 A. That's probably -- that's probably fair.

23 Q. And aside from comparing the VIN numbers,
24 what else did you do to select the vehicles?

25 A. Charlie Crosby would -- would have looked at

Page 178

1 those vehicles, made that decision. I'm sure that
2 he -- he told me which vehicles he was looking at and
3 I approved them. I don't remember specifically doing
4 that.

5 Q. Do you agree that the Escape used in the
6 crash test did not have a sunroof?

7 A. Yes.

8 Q. Did you do anything to determine what effect
9 the sunroof has on the strength of the Escape's
10 structure?

11 A. No.

12 Q. I want to ask you about how the vehicles
13 were set up for the crash test.

14 A. Okay.

15 MR. MASHMAN: I'm going to show you
16 Plaintiff's Exhibit 74, which is a series of
17 photographs from the crash test set-up.

18 (Plaintiff's Exhibit 74 was marked for
19 identification.)

20 MR. MASHMAN: Sorry, Rick. I don't have
21 another copy of this one, but it's in his
22 file.

23 MR. HILL: That's all right.

24 BY MR. MASHMAN:

25 Q. These pictures show how the vehicles were

Page 179

1 lined up before the crash test, right?

2 A. Yes.

3 Q. And looking at -- do you see the photo
4 numbers under each one of the --

5 A. I do.

6 Q. You're going to be referring to those.

7 Let's start with photo 226.

8 A. 226?

9 Q. Yes. It should be the first one.

10 A. The very first photo.

11 Q. The very first photo. Make it easy.

12 A. No, that's 225.

13 Q. Oh, the first noncover sheet.

14 A. Got it.

15 Q. This shows the Escape's starting position in
16 the crash test; is that right?

17 A. Yes.

18 Q. And no one moved the Escape from this
19 position before the crash; is that right?

20 A. I think that's correct. Yes, sir.

21 Q. The F-250 had a different starting point
22 from this in the crash test; is that fair?

23 A. Yes, sir.

24 Q. The F-250 was moved backwards along the
25 track before the crash test, right?

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1 A. Yes.

2 Q. And it's starting position was off the
3 screen of this picture. It was way further back
4 along the track, right?

5 A. Yes.

6 Q. And then the F-250 was towed into the Escape
7 using a device in the track; is that correct?

8 A. Yes.

9 Q. And looking at photos 276 and 277 --

10 A. 276 and 277?

11 Q. Yes.

12 A. Okay.

13 Q. Do those two photos show the device that was
14 used to tow the Escape along the track?

15 A. I believe they do.

16 Q. And it's -- sorry. Strike that.

17 The purpose of this device was to pull the
18 F-250 forward up to the desired speed and then let go
19 at the last second to cause the F-250 to crash into
20 this Escape; is that fair?

21 A. Essentially, yes.

22 Q. What's that device called? Does it have a
23 name?

24 A. I have no idea. I think of it as a track
25 and a sled on the track, but I don't know what they

Page 181

1 call it there.

2 Q. I wouldn't be wrong if I referred to it as a
3 sled, a sled pulling the F-250 --

4 A. Or a slider pulling it along the rail.

5 MR. MASHMAN: Okay. I think we've been
6 going for a while. Let's -- let's go ahead
7 and take a break.

8 THE WITNESS: Okay.

9 THE VIDEOGRAPHER: The time is 3:01 p.m.
10 We are off video record.

11 (Recess from 3:05 p.m. to 3:19 p.m.)

12 THE VIDEOGRAPHER: The time is 3:19 p.m.
13 We are back on video record.

14 BY MR. MASHMAN:

15 Q. We were talking a second ago about the setup
16 of the crash test.

17 A. Can I -- I was thinking through in the other
18 room drinking my diet Coke and thinking through. I
19 just want to make it clear about the HVE SIMON, that
20 I don't think it's appropriate to just blindly
21 predict crush without some reference to compare to.
22 I hope that came across, but that's the shortest and
23 sweetest statement I can make about it.

24 Q. Okay. This crash test had an offset, right?

25 A. Yes, sir.

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1 Q. And it's my understanding, correct me if I'm
2 wrong, that your conclusion was that in the subject
3 crash, the Escape's center line was offset 10.9
4 inches to the right of the F-250's center line; is
5 that correct?

6 A. Approximately, yes.

7 Q. And you could say the same thing in reverse,
8 that the F-250 center line was 10.9 inches to the
9 left of the Escape's center line; is that right?

10 A. Yes.

11 Q. I just want to make sure that goes both
12 ways?

13 A. I think our estimate was 10.9 and that
14 would -- I don't know -- plus or minus a quarter or
15 something, probably.

16 Q. How did you come to that estimate of
17 10.9 inches offset?

18 A. By looking at the interaction between the
19 vehicles where the tow hooks made contact, where the
20 hinge points made contact between the Ford Escape and
21 the F-250.

22 Q. And did you use the alignment of the three
23 scans to come up with the 10.9 inches of offset?

24 A. Yes.

25 Q. And you mentioned the tow hooks. Were the

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1 tow hooks the only match point that you used to line
2 up those two vehicles?

3 A. I think -- as I recall, it was the tow
4 hooks. And there were -- there was some indentations
5 on the hood of the F-250 that lined up, I want to
6 say, with the hinges or part of the hatch on the
7 Escape.

8 It seems like one of the C-Brackets had made
9 an imprint or something like that. There were three
10 or four points -- three or four components like that
11 that we tried to line up. And, of course, you're
12 lining it up visually, you know.

13 Q. Lining it up visually --

14 A. Using the point clouds.

15 Q. -- using the point clouds. That's what I
16 was trying to get to.

17 A. Yes.

18 Q. So you take the point clouds from the 3D
19 scan of the Escape, the 3D scan of the F-250 and line
20 up the tow hooks, indentations on the F-250's hood
21 and C-Bracket to align those two vehicles.

22 Is that a fair summary?

23 A. That's my recollection. There may have been
24 other components, but those are the ones that I
25 remember.

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1 Q. Okay.

2 A. I think that there were a lot of little
3 marks that were looking at trying to associate
4 between the two.

5 Q. Sitting here today, you don't recall any
6 other match points that you relied on in aligning the
7 two point clouds in the subject collision; is that
8 fair?

9 A. That's fair.

10 Q. Did you rely on anything else to come up
11 with the 10.9 inches of lateral offset?

12 A. No.

13 Q. Why did you decide to set up the crash test
14 with the same amount of offset as there was in the
15 subject collision?

16 A. Because we're exploring the intrusion into
17 the rear occupant compartment.

18 Q. Could the amount of offset potentially
19 impact the characteristics of the collision?

20 A. Sure. I don't think little changes. I
21 think like Mr. Buchner says it's about 12 inches.
22 I'm not going to argue about an inch.

23 You know, I think five or six inches,
24 eight inches, yeah, that could make a difference, but
25 I think half an inch, an inch, I'm not going to argue

Page 185

1 about that.

2 Q. Do you agree the more offset there is in a
3 crash, the more likely intrusion into the occupant
4 compartment is?

5 MR. HILL: Object to the form. Go
6 ahead.

7 THE WITNESS: Within a certain reason,
8 that's probably fair. I mean, you know, if
9 you -- if you -- again, if you go to an
10 extreme, you're going to generate more
11 intrusion.

12 BY MR. MASHMAN:

13 Q. What I'm trying to get at, all things being
14 equal, more offset would mean more intrusion.

15 Is that the right relationship?

16 MR. HILL: Object to the form. Go
17 ahead.

18 THE WITNESS: Again, within a range, I
19 don't know -- within a short range, I don't
20 think it's going to matter significantly.

21 But a large range. I think that's probably
22 true.

23 BY MR. MASHMAN:

24 Q. Do I have the directions right? It's not
25 the opposite of what I said, right, that more offset

Page 186

1 means less intrusion?

2 A. Again, that's probably true. I mean, I'd
3 have to look at it and research but, in general, I
4 think that that's probably true.

5 Q. I found a statement on IIHS website that in
6 an offset crash --

7 THE REPORTER: What's the website? I'm
8 sorry.

9 MR. MASHMAN: IIHS.

10 THE REPORTER: Thank you.

11 THE WITNESS: Institute -- Insurance
12 Institute for Highway Safety.

13 BY MR. MASHMAN:

14 Q. In the statement I found was that in an
15 offset crash, quote, a smaller part of the structure
16 has to manage the crash energy and intrusion into the
17 occupant compartment is more likely.

18 Is that accurate and fair to your knowledge?

19 A. If that's what's on their website, that's
20 what's on there. You know, I'm not going to dispute
21 that. Okay?

22 Q. And do you agree with the IIHS that an
23 offset test is more demanding of a vehicle structure
24 than a full width test?

25 A. If you have a lot of offset versus a full

Page 187

1 center line to center line, I think that's probably
2 true.

3 Q. Do you still have the photos --

4 A. I do.

5 Q. -- from the crash test setup?

6 Looking at the photos 238 to 240. Just let
7 me know when you're there.

8 A. 238?

9 Q. Yes, sir.

10 A. I'm at 238.

11 Q. This shows how the Escape was oriented
12 10.9 inches to the right of the center line of the
13 track; is that correct?

14 A. I think that that's correct.

15 Q. Is the Sharpie mark in photograph 238 the
16 Escape's midpoint?

17 A. I don't know. I'm assuming it is, but I
18 don't know. I'm not the one that made the mark.

19 Q. But that measurement is -- at least appears
20 to indicate that this is how they lined up, that the
21 Escape was 10.9 inches to the right of the track's
22 center line, right?

23 A. Yes. That's what this implies.

24 Q. Go to page -- photos 243 to 245.

25 A. Okay.

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1 Q. These show that the F-250 was set up with
2 its center line directly above the center line of the
3 track; is that correct?

4 A. Yes.

5 Q. So the way the crash test was set up --
6 well, I think I asked that.

7 Was the intent of this test to keep the
8 vehicles in this same alignment where the center line
9 of the F-250 was at the center line of the track at
10 the moment of impact and the Escape was offset
11 10.9 inches to the right?

12 A. In general that would be the desire of this.
13 That's why they released the vehicle right before
14 impact.

15 Q. At one point in your report you mention that
16 the front bumper of the F-250 and the rear bumper of
17 the Escape were approximately aligned at impact.

18 Does that refer to being aligned in terms of
19 height?

20 A. Yes, sir.

21 Q. I'm going to refer back to these photos.

22 A. To which photos? The test photos? Okay,
23 yeah.

24 Q. Photograph 284.

25 A. Yes.

Page 189

1 Q. This shows that the Escape was placed in
2 neutral for the crash test, right?
3 A. Yes, sir.

4 Q. And skipping ahead to 286, this shows that
5 the Escape's parking brake was engaged for the crash
6 test, right?

7 A. That's what it looks like. Yes, sir.

8 Q. Was there any evidence that the parking
9 brake was engaged in the subject collision?

10 A. No.

11 Q. Is there any test procedure to your
12 knowledge that requires a parking brake to be engaged
13 in a rear impact crash test?

14 A. I don't know.

15 Q. There's yellow and black tape on the hood of
16 the F-250 and Escape in some of these photographs?

17 A. Yes.

18 Q. Is that to show where the center line is?

19 A. It's just showing references. I think that
20 those are one-inch squares, as I recall, if that's
21 what you're talking about. You're just talking about
22 the checkers --

23 Q. The yellow and black tape.

24 A. I think -- my recollection is those are
25 one-inch squares.

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1 Q. Are those -- the ones on the hood, are those
2 aligned over the center line of the vehicles?

3 A. I'm assuming that they are. I don't know.
4 I'm not the one that did that.

5 Q. Looking at photograph 280, this is of the
6 interior of the F-250 used in the crash test,
7 correct?

8 A. Yes.

9 Q. And there isn't -- I don't see any sort of
10 steering mechanism; is that right?

11 A. That's correct.

12 Q. So if the -- I forgot what you called it
13 earlier. The sled is what was pulling the F-250, but
14 as far as the steering wheel itself, nothing was
15 holding or stabilizing it during the test, right?

16 A. I don't know. They may have locked the
17 steering. I don't know.

18 Q. The crash test F-250 was ballasted off to
19 8,533 pounds for the crash test, right?

20 A. Yes, sir.

21 Q. And the Escape was ballasted up to
22 3,940 pounds for the crash test?

23 A. Was it 40 or 41? I can't remember now.
24 Three thousand nine hundred and forty-one on page --
25 I don't see a page number. It's under vehicle crash

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1 test condition for the Escape. Total weight is
2 3,941.

3 Q. Okay. It was ballasted up to 3,941 pounds
4 for the crash test, right?

5 A. Yes, sir.

6 Q. And we talked about how you got to those
7 calculations earlier, right, adding the occupants and
8 cargo to curb weights of the F-250 and Escape; is
9 that fair?

10 A. Yes, sir.

11 Q. Do you agree that changing the weights of
12 vehicles could impact results in a crash test?

13 MR. HILL: Object to the form. Go
14 ahead.

15 THE WITNESS: If you change them
16 significantly, they could. I think minor
17 changes are not going to greatly affect --
18 substantially affect the results.

19 BY MR. MASHMAN:

20 Q. Do you agree that all else being equal, a
21 collision with heavier vehicles will result in more
22 intrusion and crush damage in a collision?

23 MR. HILL: Object to the form.

24 THE WITNESS: That might be true. I
25 don't know. That might be true.

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1 BY MR. MASHMAN:

2 Q. I want to ask you about the emergency brake
3 we talked about a second ago.

4 Did you direct Exponent to engage the
5 emergency brake of the Escape before the crash test?

6 A. Not specifically. I think that was a
7 decision -- first of all, I don't know that it was on
8 at the actual impact. It may have been on to make
9 sure the vehicle didn't move before the test. I
10 don't know. As I sit here, I don't know.

11 But it doesn't bother me because you then
12 have an axle that's locked. That's not an issue for
13 me because the vehicle was in gear.

14 Q. I think my -- my question was whether you
15 directed Exponent to engage the emergency --

16 A. I did not.

17 Q. Were you aware that Exponent had pulled the
18 emergency brake before the test?

19 A. You know, they may have told me that out
20 there. I don't specifically recall being told that.

21 Q. Do you have any recollection of Exponent
22 telling you why they did that?

23 A. No.

24 Q. The test Escape did not have any cargo in
25 the cargo area during the crash test, correct?

Page 193

1 A. Correct.

2 Q. Why not?

3 A. Because we didn't feel it was necessary to
4 put that in for our purposes and we didn't know
5 exactly where the cargo was -- was at the time of the
6 crash.

7 Ms. Kelley and Mr. Bryson didn't recall
8 either. And so instead of guessing at that, we
9 wanted to understand what would happen without the
10 cargo. We always knew that if we put cargo in,
11 whatever displacement we had of the tailgate would be
12 amplified if there were materials in there taking up
13 that space.

14 So it was the simplest test we could run
15 without -- without compromising those types of
16 things.

17 Q. I think you said earlier you didn't want to
18 guess where the cargo was located in the Escape; is
19 that fair?

20 A. Yes.

21 Q. Why is it important not to guess where the
22 cargo was located in the Escape?

23 A. Because if we had put the cargo in and we
24 got whatever that result was, we could be subject to
25 criticism for not knowing where it was and

Page 194

1 purposefully placing it for some purp- -- some of our
2 own purposes and we had no desire to do that.

3 Q. And that criticism would be that the cargo
4 was in a different location than where it was in the
5 subject wreck, right?

6 A. Yes.

7 Q. And isn't it true by not including any
8 cargo, the cargo was not in the same location that it
9 was in the subject wreck?

10 A. That's true. But it also then doesn't have
11 an artificial effect on the seat back displacement.

12 MR. MASHMAN: I'm showing you
13 Plaintiff's Exhibit -- I think that says
14 75 -- yes. It's two pictures of the damage
15 to the Escape after the crash test.

16 (Plaintiff's Exhibit 75 was marked for
17 identification.)

18 BY MR. MASHMAN:

19 Q. The second picture might be a little better
20 for this, picture 385. Do you see that?

21 A. Yes.

22 Q. Do you see a mark left by the Ford F-250's
23 Ford emblem on the rear of the Escape?

24 A. No.

25 Q. I'm looking at this mark above where it

Page 195

1 says: Escape XLT.

2 A. Okay.

3 Q. Is that mark consistent with the Ford emblem
4 on the F-250?

5 A. I don't know. I don't see what you're
6 seeing. I don't know if it is or not.

7 Q. Do you see a mark in an approximate oval
8 shape above "Escape XLT"?

9 A. No. Just right above it? I see something
10 there. I don't know that it's necessarily a Ford
11 emblem. I see something there. There's definitely
12 something there.

13 Q. Is it your opinion that it's inconsistent
14 with being a Ford emblem or just that you can't say
15 one way or another?

16 A. I just can't say one way or another.

17 Q. I asked you this earlier.

18 The crash test didn't apply any braking for
19 the F-250, right?

20 A. Yes. It did.

21 Q. I apologize. Before impact, the crash test
22 did not apply any braking for the Ford F-250, right?

23 A. That's correct.

24 Q. Did you perform any testing to determine how
25 much .5 seconds of braking lowers the front bumper of

Page 196

1 a 2016 F-250?

2 A. No.

3 Q. Did you perform any calculations to
4 determine how much .5 seconds of braking lowered the
5 front bumper of a 2016 F-250?

6 A. No.

7 MR. MASHMAN: I'm going to hand you
8 three exhibits. These are Exhibits 76, 77
9 and 78.

10 (Plaintiff's Exhibit 76, Exhibit 77 and
11 Exhibit 78 were marked for identification.)

12 BY MR. MASHMAN:

13 Q. Here's 76. That's a figure from your
14 report. 77 is a series of pictures of the Escape
15 after the crash test. And 78 is a series of pictures
16 of the subject Escape after the collision.

17 Do you agree that the second row seat Cohan
18 was sitting in deformed farther forward in the
19 subject collision than in the crash test?

20 A. It certainly appears to have. Yes.

21 Q. Did you quantify how much the second row
22 seat deformed statically in the subject collision?

23 A. No.

24 Q. Did you take any measurements of how much
25 the second row seat deformed statically in the

Page 197

1 subject collision?

2 A. We have scans where we can pull measurements
3 off of that, but we have not done that.

4 Q. Did you quantify how much the second row
5 seat deformed statically in the crash test?

6 A. No.

7 Q. Did you quantify how much farther forward
8 the subject Escape's seat back is deformed compared
9 to the test Escape's seat back?

10 A. No.

11 Q. Did you measure the angle of either seat
12 back?

13 A. No.

14 Q. Do you have your report in front of you?

15 A. Yes.

16 Are you done with these images or --

17 Q. I'd like to keep them --

18 A. Okay.

19 Q. On page 33 of your report --

20 (Discussion ensued off the record.)

21 THE WITNESS: Page 33?

22 MR. MASHMAN: Yes.

23 THE WITNESS: Okay.

24 BY MR. MASHMAN:

25 Q. You offer the opinion that the test Escape

Page 198

1 would have sustained more seat deformation if it had
2 been loaded with exemplar cargo; is that right?

3 A. Yes.

4 Q. What is the basis of your opinion that the
5 difference between the second row seat deformation
6 was due to the lack of cargo in the test Escape?

7 A. Because the rear hatch came forward and made
8 contact with the seat back. And if there has been
9 cargo there, it would have taken up that space and
10 would have caused the seat back of the second seat in
11 the Escape to have been displaced more forward.

12 Q. Did you base that conclusion on any testing?

13 A. The crash test.

14 Q. The crash -- I'm specifically talking about
15 the conclusion that if cargo had been placed in the
16 cargo area, the seat back would have deformed more
17 than in the crash test.

18 A. There was not any additional testing for
19 that, no.

20 Q. Did you perform any calculations to reach
21 that conclusion?

22 A. No.

23 Q. Does your report cite any literature for
24 that conclusion?

25 A. I don't think so.

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1 Q. Did you perform any analysis to determine
2 what the total volume is of the cargo that was in the
3 subject Escape?

4 A. No.

5 Q. Did you perform any analysis to determine
6 whether the cargo would have deformed before the
7 second row seat deformed?

8 A. No. We didn't do a specific analysis for
9 that.

10 Q. Did you analyze whether the Shop-Vac is
11 stronger than the bolted down second row seat of the
12 Bryson's SUV?

13 A. No.

14 Q. Did you analyze whether a bag of clothing is
15 stronger than the second row of the Bryson's SUV?

16 A. We didn't, but it would depend upon how much
17 it was compressed obviously.

18 Q. But you didn't analyze how much it was
19 compressed relative to the strength --

20 A. We did not.

21 Q. Did you analyze whether the camping chairs
22 were stronger than the second row of the Bryson's
23 SUV?

24 A. We did not.

25 THE REPORTER: Slow down.

Page 200

1 BY MR. MASHMAN:

2 Q. I apologize.

3 Did you analyze whether the umbrella
4 stroller was stronger than the second row of the
5 Bryson's SUV?

6 A. We did not.

7 Q. And I think you mentioned this earlier.

8 Do you hold yourself out as an expert in
9 seat back design?

10 A. No.

11 Q. Do you have any basis to offer an expert
12 opinion on seat back design?

13 A. On seat back design? No.

14 Q. Isn't it true that seat backs have a frame
15 around the outer edge and the inside of that frame is
16 mostly filling?

17 A. I think in some cases there is a lot of
18 filling. I think there's some substructures. You
19 would have to deglove that seat. Again, I'm not an
20 expert on seat backs.

21 Q. And did you de-trim the seat in either the
22 subject wreck or the test Escape to determine the
23 internal make-up of the seat?

24 A. No.

25 Q. Do you have an opinion about how much more

Page 201

1 the second row seat in the test Escape would have
2 been deformed if you had loaded the same cargo into
3 it that was in the subject wreck?

4 A. No.

5 MR. MASHMAN: I'm going to show you
6 Plaintiff's Exhibit 79.

7 (Plaintiff's Exhibit 79 was marked for
8 identification.)

9 BY MR. MASHMAN:

10 Q. This is an interrogatory that the
11 plaintiff's responded to in this case.

12 Did Rough Country provide this to you before
13 the crash test?

14 A. I don't remember seeing this, but we may
15 have seen it.

16 Q. Do you agree that this itemizes what was in
17 the back seat of -- strike that.

18 Do you agree that this itemizes what was in
19 the rear compartment of the Bryson's Escape?

20 A. That's what it says it does. Yes.

21 Q. Did you rely on this in any way when you
22 decided on how to configure the crash test?

23 A. No. Because we weren't putting cargo back
24 there.

25 Q. Do you agree that if you had made the

Page 202

1 decision of what to put in the rear, this would have
2 told you?

3 A. It would have told us what to put there. It
4 wouldn't have told us where to put it.

5 Q. What's the difference between static
6 deformation and dynamic deformation?

7 A. A dynamic deformation occurs during force
8 application. As the forces are removed, the system
9 material relaxes and restores some of its original
10 shape.

11 Q. Did you analyze the amount of dynamic
12 deformation in the subject Escape's second row seat?

13 A. No.

14 Q. Did you analyze the amount of dynamic
15 deformation in the test Escape's second row seat?

16 A. No.

17 Q. Did you see any physical evidence showing
18 that the second row seat in the test Escape
19 dynamically deformed past where it had deformed
20 statically?

21 A. I didn't look for it. So, no, I didn't.

22 Q. I asked a similar question, not this exact
23 question: Did you measure the amount of dynamic
24 deformation in the subject Escape?

25 A. No.

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1 Q. Did you measure the amount of dynamic
2 deformation in the test Escape?

3 A. No.

4 Q. And same question with respect to the amount
5 of intrusion.

6 Did you measure the amount of dynamic
7 deformation with respect to intrusion in the subject
8 Escape?

9 A. No.

10 Q. Did you measure the amount of dynamic
11 deformation with respect to intrusion in the test
12 Escape?

13 A. No.

14 Q. Do you have any criticism of Mr. Buchner's
15 analysis of the dynamic deformation in the subject
16 collision?

17 A. The only criticism is I'm not sure exactly
18 how he does it; he talks about seeing different
19 features that must have interacted. I'm not sure
20 that it's that simple. I think that some of the
21 features interacting could as be caused by just
22 movements up and down and things like that.

23 I don't know exactly what features he's
24 talking about, so I'm not going to -- I can't be
25 specific about those criticisms because I'm not sure

Page 204

1 I understand fully exactly what he did.

2 Q. Do you have any disagreement with
3 Mr. Buchner's conclusion about the amount of dynamic
4 deformation in the subject collision?

5 A. I haven't looked at that. I -- I agree that
6 there would be dynamic deformation. I just am not
7 sure that you can quantify it as accurately as he
8 calculates.

9 Q. Sitting here today, you haven't looked at
10 the amount of dynamic deformation and don't disagree
11 with the number he came up with; is that fair?

12 A. I don't --

13 MR. HILL: Object to the form. Go
14 ahead.

15 THE WITNESS: I don't agree or disagree.
16 I -- I agree that there would be dynamic
17 deformation. I haven't made any attempt to
18 quantify it.

19 BY MR. MASHMAN:

20 Q. Your report -- I'm going back to static
21 deformation.

22 Your report says that the static deformation
23 of the second row of the subject Escape and test
24 Escape are substantially similar.

25 What is your basis for that conclusion?

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1 A. Just looking at the two vehicles and looking
2 at photographs.

3 Q. So that's a visual conclusion; is that fair?

4 A. It is.

5 MR. MASHMAN: I'm showing you what's
6 been marked as Plaintiff's Exhibit 81. This
7 is figure 29 from your report.

8 (Plaintiff's Exhibit 81 was marked for
9 identification.)

10 BY MR. MASHMAN:

11 Q. This graph compares the delta-v for the
12 subject F-250 and crash test F-250, correct?

13 A. It does.

14 Q. And you note in your report that the
15 delta-vs are different between approximately 50
16 milliseconds and 130 milliseconds, correct?

17 A. There is a short area there where they
18 are -- they do diverge.

19 Q. And you call it a short area. Is the
20 subject test shorter or is the crash test shorter? I
21 think that I said wrong.

22 MR. HILL: Object to the form.

23 MR. MASHMAN: I apologize. Let me say
24 that question again. I think I made a
25 mistake.

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1 BY MR. MASHMAN:

2 Q. Are you saying that the subject collision
3 has a shorter delta-v or the crash test has a shorter
4 delta-v?

5 MR. HILL: Object to the form.

6 THE WITNESS: There's -- I think I
7 understand what you're asking me. Shorter
8 delta-v doesn't make sense to me.

9 If you -- if you look at, say,
10 100 milliseconds, the delta-v on the
11 collision Ford is slightly lower than the
12 delta-v on the crash test Ford. And if you
13 look at the slope there, then the crash test
14 was a little bit stiffer during that time.

15 BY MR. MASHMAN:

16 Q. Okay. And I'll try -- let me see if I can
17 get this right.

18 The crash test achieved a higher delta-v in
19 less time between 50 milliseconds and
20 130 milliseconds; is that fair?

21 A. Well, I don't know that it's 131, but it
22 will be close to that. Whatever it is. I mean, the
23 data is what the data is.

24 Q. But the relationship I described is
25 correct --

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1 A. It does. Yeah, the Ford in the crash
2 test -- it appears to me that it encounter some
3 stiffer -- some stiffer structures during that time
4 period just because the slope of the delta-v is
5 different.

6 Q. In your report, you conclude that the
7 difference between the two delta-vs in this diagram
8 is due to the cargo not being present in the rear of
9 the Escape in the crash test; is that right?

10 A. Well, it's not just the difference in the
11 cargo but also your -- you are a little bit lower, so
12 you are engaging some of the lower structures that in
13 the crash vehicle, the subject vehicle, those lower
14 structures weren't engaged.

15 Q. So it's not just the cargo in the rear area
16 of the Escape but also the different structures were
17 interacted with in the crash test; is that fair?

18 A. I think that that's it. Again, we
19 haven't -- we haven't done a detailed analysis why
20 they are different, but those are some of the things
21 that make sense to me.

22 Q. When we talk about the cargo, we're talking
23 about the items in the trunk of the Escape, right,
24 the Shop-Vac, the camping chairs, the stroller and
25 the bag of clothes?

Page 208

1 A. Right. But the difference between the crash
2 test and the subject crash is that the F-250 was
3 lower, so it engaged some of the lower structures and
4 those structures are different.

5 Q. I understand that. With respect to the
6 cargo, what you say contributed to the difference in
7 the delta-vs, what is that portion of your conclusion
8 based on, that the cargo caused some of that
9 difference?

10 A. I think that what may be happening there --
11 again, we haven't done a film analysis or anything
12 like that. But I think that the tailgate engages the
13 seat back in the test where the tailgate engages
14 cargo in the subject crash.

15 Q. What is that based on?

16 A. There wasn't any cargo there in the test.

17 Q. I apologize. The tailgate engaging the seat
18 back in the test?

19 A. There wasn't any cargo there in the test.
20 There wasn't any cargo for it to interact with.

21 Q. Do you agree that in the subject collision
22 the lateral delta-vs for the F-250 were initially
23 positive and then subsequently negative?

24 A. I haven't looked at that detail, but we can
25 go look at it.

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1 If you're looking at the lateral delta-v, on
2 page 9 of the report, the lateral delta-v goes
3 negative .02 plus .01 negative .70, .12 and so on.

4 Is that what you're talking about?

5 Q. Yes.

6 A. Okay.

7 Q. Is it fair to say the lateral delta-vs are
8 largely negative in the subject collision for that
9 F-250?

10 A. Yes.

11 Q. And then looking at the lateral delta-vs for
12 the crash test, is it fair to say that the lateral
13 delta-vs are initially negative and then subsequently
14 positive?

15 A. That's true.

16 Q. Why were the lateral delta-vs different
17 between subject wreck and the crash test?

18 A. I don't know without doing a detailed
19 analysis of it, but my suspicion is that you're
20 engaging different structures.

21 Q. On page 34 of your report -- sorry. I'll
22 give you a second to get there.

23 MR. HILL: What page did you say?

24 MR. MASHMAN: 34.

25 THE WITNESS: Yes.

Page 210

1 BY MR. MASHMAN:

2 Q. You state that the crash test had more
3 intrusion than the subject vehicle from the crash.

4 Did I read that correctly?

5 A. The crash test had more intrusion than the
6 subject vehicle from the crash.

7 Q. Is it your opinion that lift kits reduce
8 intrusion into other vehicles in rear impacts?

9 A. No --

10 MR. HILL: Object to the form but go
11 ahead.

12 THE WITNESS: -- not necessarily.

13 That's -- you know, that's this vehicle,
14 this configuration, these speeds and also
15 aligning things up visually. You know, they
16 might be closer to the exactly the same.

17 Lining things up visually, that's what
18 we came up with.

19 BY MR. MASHMAN:

20 Q. What is your explanation for the result that
21 the crash test had more intrusion than the subject
22 vehicle?

23 A. There wasn't cargo there that would have
24 loaded the rear seat, that would have then deformed
25 the rear seat.

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1 Q. And have we discussed the basis for that
2 conclusion already?

3 A. I think so.

4 Q. And the -- when we talked about the cargo
5 earlier, we talked about the cargo affecting the
6 amount of deformation to the rear seat. But I
7 understand your point here to be that the cargo was
8 the reason why the crash test had more intrusion
9 overall into the subject vehicle; is that right?

10 A. What I'm saying is that I have not done a
11 detailed analysis of that. But as I sit here what I
12 would tell you is without -- you've got a lot of
13 basically empty space there in the test. That empty
14 space is not applying any force other than the
15 tailgate and -- until the tailgate hits the seat
16 back.

17 So if you have cargo there, it's going to
18 hit resistance sooner. That resistance is going to
19 be transferred to the seat back.

20 Q. So are you saying that the cargo keeps the
21 F-250 further out?

22 A. Well, I think that's the net effect. But
23 the issue is we weren't applying a force to the seat
24 back through the cargo because there's -- there's
25 empty space there.

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1 MR. MASHMAN: Okay. I'm showing you
2 Plaintiff's Exhibit 80, which is a screen
3 shot from the video of the crash test.

4 (Plaintiff's Exhibit 80 was marked for
5 identification.)

6 BY MR. MASHMAN:

7 Q. It was taken shortly before impact.

8 Do you agree that the F-250's center line is
9 not aligned with the center line of the track?

10 A. From this perspective, I would agree with
11 that.

12 Q. Do you believe that the perspective is the
13 only reason why the F-250 center line is not aligned
14 to the center of the track?

15 A. I don't know. I haven't looked at it.

16 Q. But at least in this photo you agree that
17 the F-250's center line is to the left of the center
18 line of the track.

19 A. I think the tape that's on the center of the
20 hood appears to be to the left. But the center of
21 the bumper may still be because there's parallax
22 issues.

23 Q. What is a parallax issue?

24 A. Distortion of the imagine because of
25 photography and lenses where things don't line up the

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1 way you think they do.

2 Q. Have you done any analysis to determine how
3 far to the left of the center line of the track the
4 center line of the F-250 was at the moment of impact?

5 A. No.

6 Q. Page 34 of your report --

7 A. Yes.

8 Q. -- describes how you determined the amount
9 of static crush in the subject collision and in the
10 crash test, right?

11 A. Yes.

12 Q. Can you -- I'm sorry. You've already
13 explained your methodology for determining the amount
14 of static crush in the subject collision, right?

15 A. Yes.

16 Q. And that was taking the point clouds and
17 aligning them with -- I believe, it was the tow
18 hooks, the C-Brackets and impacts on the hood; is
19 that right?

20 A. Yes.

21 Q. Did you --

22 A. And just to be clear, also just general
23 shape of the crush, it helps you align those things.

24 Q. And general shape?

25 A. Yeah.

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1 Q. Did you use the same process to determine
2 the amount of maximum static crush in the crash test?

3 A. We used the -- basically the point clouds
4 and trying to align the -- the crush profiles that
5 we're seeing. I don't recall having specific
6 landmarks like that, but we could have, you know.

7 We look -- we look at the point cloud. We
8 cut the point cloud apart and try to look at matching
9 structures and that's the way it's done.

10 Q. And you said you didn't use specific
11 landmarks. Is that the same thing as match points?

12 A. I don't recall using specific ones. We
13 probably did. I just -- as I sit here, I don't
14 remember those specific ones.

15 Q. So you don't remember which match points you
16 did or didn't use to align the F-250 and the Escape
17 after the crash test?

18 A. That's fair.

19 Q. Do you agree that the F-250's intrusion into
20 the Ford Escape was at a lower height in the crash
21 test than in the subject collision?

22 A. I don't know. I haven't looked at that.
23 You have that rear cover. It probably is, but I
24 haven't looked at that detail.

25 MR. MASHMAN: I'm going to show you

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1 Plaintiff's Exhibit 82. This is the Escape
2 comparative crush document from your file.

3 (Plaintiff's Exhibit 82 was marked for
4 identification.)

5 BY MR. MASHMAN:

6 Q. What conclusions are you illustrating or
7 drawing about the amount of crush in the subject
8 Escape versus the test Escape with the document?

9 A. Just that the crush is in the same area and
10 it's the same general magnitude.

11 Q. And are there particular measurements that
12 you're relying on for that or is it just a visual --

13 A. Just a visual analysis.

14 Q. Do you agree that these scans show less
15 occupant space in the second row of the subject
16 vehicle than in the crash test vehicle?

17 MR. HILL: Object to the form.

18 THE WITNESS: That's probably true.

19 BY MR. MASHMAN:

20 Q. Did you quantify the amount of occupant
21 space isn't the subject -- second row of the subject
22 vehicle versus the crash test vehicle?

23 A. No.

24 Q. Do you agree these scans show more forward
25 deformation of the second row seat where Cohan was

Page 216

1 sitting in the subject vehicle versus the test
2 vehicle?

3 A. I think that's true.

4 MR. MASHMAN: All right. I'm showing
5 you Plaintiff's Exhibit 83, which is the
6 Ford F-250 comparative crush document from
7 your file.

8 (Plaintiff's Exhibit 83 was marked for
9 identification.)

10 BY MR. MASHMAN:

11 Q. What conclusions, if any, are you
12 illustrating in this document?

13 A. Again, that the general crush profile is
14 substantially similar. It doesn't match exactly, but
15 it's similar.

16 Q. Do you have any threshold for how you
17 determine similarity or is that based on a visual
18 comparison?

19 A. Visual comparison of the point clouds in the
20 photos and seeing the actual vehicles.

21 Q. Are there measurements you're relying on for
22 similarity or same answer?

23 A. Same answer.

24 Q. The only crash test produced to the
25 plaintiffs in this case was the test run by Exponent

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1 on May 15th, 2023, test number TEC 2210759.

2 Is that the test that was in your file?

3 A. What's the test number?

4 Q. TEC 2210759.

5 A. Yes. That's the one that's in my file.

6 Q. Other than this crash test, has Exponent run
7 any other test in this case?

8 A. Not to my knowledge.

9 Q. Other than this crash test, have you run any
10 other test in this case?

11 A. No.

12 Q. Other than this crash test, have there been
13 any other tests that you were present for?

14 A. In this case, no.

15 Q. Has anyone run any other tests in this case
16 on Rough Country's behalf other than this crash test?

17 A. Not that I'm aware of.

18 MR. MASHMAN: I'm showing you
19 Plaintiff's Exhibit 71.

20 (Plaintiff's Exhibit 71 was marked for
21 identification.)

22 BY MR. MASHMAN:

23 Q. It's a document produced as part of your
24 file in the testing folder.

25 Who created this document?

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1 A. I did.

2 Q. Isn't it true this document identifies
3 four vehicles?

4 A. It does.

5 Q. It identifies two F-250s?

6 A. Yes.

7 Q. It identifies two Escapes?

8 A. Yes.

9 Q. And each has a different weight?

10 A. Yes.

11 Q. Do you agree that -- I apologize.

12 At the top it says "as received;" is that
13 right?

14 A. Yes.

15 Q. And then it says: First set of vehicles as
16 received?

17 A. Yes.

18 Q. And the weights in the first set of vehicles
19 as received match the weights used in the crash test;
20 is that right?

21 A. Of the curb weight of it, yes. For the
22 Escape, yeah. The curb weight, yeah.

23 Q. The first set of vehicles as received refers
24 to the vehicles that were used in the crash test,
25 right?

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1 A. I think that's correct. I'm not sure on the
2 F-250. I'm pretty sure on the Escape that it is. We
3 could go and look at the test report and it would
4 give you the as-received weight.

5 MR. MASHMAN: I have an exhibit for it.

6 I'm handing you Plaintiff's Exhibit 85.

7 THE WITNESS: Yeah.

8 (Plaintiff's Exhibit 85 was marked for
9 identification.)

10 BY MR. MASHMAN:

11 Q. This is the as-received report for the F-250
12 and the Escape --

13 A. Yes.

14 Q. -- used in the crash test, right?

15 A. Yes.

16 Q. And the weights match the first set of
17 vehicles as received, correct?

18 A. Yes.

19 Q. Who received the two sets of vehicles in
20 this document?

21 A. Exponent.

22 Q. Did you receive them?

23 A. No.

24 Q. On the second set of vehicles as received,
25 it lists the weight of a separate F-250 and Escape,

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1 right?

2 A. It does.

3 Q. And that second set of vehicles as received
4 doesn't match any other F-250 and Escape referred to
5 anywhere else in the file, right?

6 A. That's true.

7 Q. Did anyone perform any testing on the second
8 set of vehicles listed in this document?

9 A. Not to my knowledge.

10 Q. Did you ever discuss the purpose of the
11 second set of vehicles listed in this document with
12 anyone?

13 A. Yes.

14 Q. What was that purpose?

15 A. To be prepared in case we wanted to or
16 needed to run a second test.

17 Q. Where is the second set of vehicles now?

18 A. I don't know whether Exponent has them or
19 whether they sold them. I don't know.

20 Q. Would you expect Exponent to preserve the
21 second set of vehicles while litigation is pending?

22 A. No, not necessarily.

23 Q. Would you expect Exponent to have
24 documentation related to the second set of vehicles
25 if Exponent bought and sold them?

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1 A. They probably would have some records. I
2 don't know. I don't know how they do the buying and
3 selling of their vehicles.

4 Q. To your knowledge, has any evidence been
5 destroyed in this case?

6 A. No.

7 Q. Have you been involved in any E-mails, Zoom
8 calls, conversations or other communications
9 discussing any use of the second set of vehicles as
10 received?

11 A. No, other than to be prepared in case we
12 needed to run a second test. That was the only
13 conversation about it.

14 Q. Have you ever discussed whether additional
15 testing has been run with Rough Country's lawyers?

16 A. No. I'm not aware of anything that's been
17 done like that.

18 Q. Has anyone ever told you affirmatively that
19 a second set of testing was not run?

20 A. I never asked the question. So, no, we've
21 never had that conversation.

22 Q. Dr. Nguyen testified that Rough Country
23 could have run a set of experiments where the only
24 variable change was to isolate how much crush was
25 caused by the lift. Do you agree with her?

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1 MR. HILL: Object to form.

2 THE WITNESS: On -- are you talking
3 about in general or are you talking about
4 this specific case?

5 BY MR. MASHMAN:

6 Q. Let me ask it this way.

7 If Exponent had two sets of vehicles, do you
8 agree that Exponent could have run the same test
9 again and put a lift on the F-250?

10 A. I suppose that's possible. I never heard
11 anything about that.

12 Q. And Exponent could have change nothing else
13 except for adding a lift to the F-250 on the second
14 test?

15 A. Again, I suppose anything like that is
16 possible. I haven't heard a thing about it.

17 Q. Do you know why Exponent didn't do that?

18 A. I'll let Exponent talk about it themselves.

19 Q. But you haven't been involved in any
20 conversation about why that wasn't done?

21 A. No, no. I guess -- you know, as I sit here
22 and think about it, I guess the conversation I had
23 was with Dr. Nguyen and that was that there was no
24 other -- there was no second test required for her
25 purposes, so we didn't run a second test.

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1 Q. On December 13th of 2022 you inspected the
2 subject vehicle, right?

3 A. That sounds right. December -- yes, mm-hmm.

4 Q. And Rough Country's executive Rad Hunsley
5 attended that inspection, right?

6 A. He did. Yes.

7 Q. Did you and Rad Hunsley talk at the
8 inspection?

9 A. Yes.

10 Q. Did Mr. Hunsley say anything to you about
11 the crash?

12 A. Nothing that I remember.

13 Q. Did Mr. Hunsley say anything to you about
14 other tests Rough Country had run, crash tests or
15 computer simulations?

16 A. Nothing like that that I remember.

17 Q. Did Mr. Hunsley say to you what Rough
18 Country had done to investigate the effects of its
19 lift in occupant protection in crash tests?

20 A. No, nothing like that, that I recall.

21 Q. Did Mr. Hunsley tell you that Rough Country
22 had been sued before in cases where people were hurt
23 in cars that were struck by lifted vehicles?

24 MR. HILL: Object to form but go ahead.

25 THE WITNESS: I -- I don't recall

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1 conversations about that. We may have, you
2 know, as we're looking at the vehicles
3 chitchatting, but I don't remember any
4 conversation like that.

5 BY MR. MASHMAN:

6 Q. Has anyone told you about that?

7 A. No -- well, you know what? I saw something
8 in -- was it Paul Lewis had a supplemental report
9 where he talked about a couple of cases, like a
10 Mustang and minivan or something. I saw that in his
11 report or materials that he made a supplemental --
12 that's the only knowledge I have is what I saw in his
13 file that he produced.

14 Q. Did Mr. Hunsley tell you about the Bacho
15 (phonetic) family who lost their daughter?

16 A. No, not that I recall.

17 Q. Did Mr. Hunsley tell you about the Mendoza
18 family?

19 A. Not that I recall.

20 Q. Did you review documents from those crashes?

21 A. No --

22 Q. Did you receive --

23 A. Well, other than -- are those the ones in
24 Mr. Lewis' supplemental? I don't know the names but
25 there were two crashes in Mr. Lewis' supplemental

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1 materials. I looked at it. I didn't do anything
2 with it.

3 Q. Did Rough Country ever give you documents
4 about the Bacho (phonetic) family or the Mendoza
5 family?

6 A. The materials I received was from Mr. Hill's
7 office, but they were produced by Mr. Lewis, I
8 believe. So, I mean, I got them from Mr. Hill, but I
9 think it was Mr. Lewis that produced them.

10 Q. So did -- aside from them sending you
11 documents because plaintiff's experts talked about
12 them, did Rough Country send you documents telling
13 you what happened to the Bacho (phonetic) family and
14 the Mendoza family?

15 MR. HILL: Object to the form. Go
16 ahead.

17 THE WITNESS: No.

18 BY MR. MASHMAN:

19 Q. What did you and Mr. Hunsley talk about?

20 A. You know, we mainly talked about the weather
21 and talked about different things. I did ask him
22 questions about the U-bolts that I saw on the back of
23 the pickup and how those things were installed, you
24 know, just the general installation and things like
25 that, but it was more chit-chat than anything else.

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1 Q. Did the U-bolts ultimately play a role in
2 your substantive opinions about the accident
3 reconstruction in this case?

4 A. No.

5 Q. On page 35 of your report, I'm looking at
6 figure 40.

7 A. Okay.

8 Q. How is this document -- scratch that.
9 How is this figure created?

10 A. Using the point clouds and aligning those
11 and then putting trace outlines around the vehicles
12 and printing this image out.

13 Q. Do you agree that both vehicles have a
14 sunroof in figure 40?

15 A. They do. Yes.

16 Q. Do you agree that the mirrors on the F-250
17 are the same in figure 40?

18 A. They do look the same. Yes.

19 Q. Were these stock pictures of an Escape and
20 F-250 that were overlaid on top of each other?

21 A. I think they were drawings made from point
22 clouds to basically trace the outline and the
23 features of the vehicles. They may have been stock
24 and scaled. I don't know. I didn't create the
25 image.

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1 Q. All right. On page 36, you outline your
2 conclusions about the case?

3 A. Yes, sir.

4 Q. The first conclusion is that the collision
5 between the F-250 and the Escape occurred on Georgia
6 State Route 2 at the intersection with Georgia State
7 Route 5.

8 The speed limit on Georgia State Route 2 was
9 45 miles per hour; is that correct?

10 A. Yes.

11 Q. The second opinion states that a lift kit
12 was installed on the subject F-250; is that correct?

13 A. Yes.

14 Q. We've discussed the third opinion, right?

15 A. Yes.

16 Q. We've discussed the basis for the fourth
17 opinion; is that right?

18 A. Yes.

19 Q. We've discussed the basis for the fifth
20 opinion?

21 A. Yes.

22 Q. Have we discussed the basis for the sixth
23 opinion?

24 A. Yes. That was the corrected value where
25 the -- the new values were 35 to like 44. The

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1 updated calculation that we went through.

2 Q. I believe we discussed the basis for your
3 seventh opinion as well, right?

4 A. Yes, sir.

5 Q. As well as your eighth opinion?

6 A. Yes, sir.

7 Q. The ninth opinion outlines the crash test,
8 right?

9 A. Yes, sir.

10 Q. And the 10th opinion discusses the slope of
11 the crash and test delta-vs as well as why cargo was
12 not placed in the rear, correct?

13 A. Yes, sir.

14 Q. And we've discussed all the reasoning for
15 that?

16 A. Yes, sir.

17 Q. And have we discussed all to have basis and
18 analysis going into your 11th opinion?

19 A. I think we have.

20 MR. MASHMAN: I'd like to take a break
21 and go off the record.

22 THE VIDEOGRAPHER: The time is 4:18 p.m.

23 We have off video record.

24 (Recess from 4:18 p.m. to 4:30 p.m.)

25 THE VIDEOGRAPHER: The time is 4:30 p.m.

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1 We are back on video record.

2 BY MR. MASHMAN:

3 Q. All right. Do you have another copy of your
4 communications file in front of you?

5 A. Yes.

6 MR. MASHMAN: So I'm going to mark your
7 copy as Plaintiff's Exhibit 93.

8 BY MR. MASHMAN:

9 Q. On the first page, you received a subpoena
10 response from the Ford dealer and installer of the
11 lift kit.

12 Is it your opinion that there was any
13 mistake by the installer?

14 A. I haven't looked at that issue at all.

15 Q. So no opinion one way or another?

16 A. No opinion one way or the other.

17 Q. This document isn't page numbered, but I'm
18 looking at April 12, 2023.

19 A. Okay.

20 Q. It appears that you were sent a document
21 called Field Report Complete by a paralegal from
22 Mr. Hill's office; is that correct?

23 A. Yes.

24 Q. What is that field report?

25 A. I think that's the download from the airbag

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1 module from the Escape.

2 Q. And that download showed no retrievable
3 information?

4 A. Yes, sir.

5 Q. On the next page towards the bottom, it
6 says: Quoted text hidden?

7 A. Yeah.

8 Q. What is that?

9 A. I think that that's -- whenever we print
10 these, if -- if I was responding to something, it --
11 it doesn't show that. It just showed the E-mail that
12 was being sent not previous E-mails in a big, long
13 chain.

14 I know whenever I'm on the Gmail, it shows
15 little dots and I have to click that and then it
16 shows all the chain to it.

17 Q. Two pages later, there's just a share file
18 doc sent. What docs were sent that day?

19 A. As I sit here, I don't know.

20 Q. Then going back to February 6th of 2023 --

21 A. February?

22 Q. February 6th, yes.

23 A. Okay.

24 Q. You got an E-mail from Rough Country's
25 lawyer forwarding the plaintiff's responses to

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1 defendant's second interrogatories; is that right?

2 A. Yes.

3 Q. I'll represent to you that that's the same
4 interrogatories we were looking at earlier that shows
5 what was in the trunk.

6 Does this show that you got that document on
7 February 6, 2023?

8 A. Okay. I'll not dispute that.

9 Q. Does this show that the receipt date for
10 that was February 6, 2023?

11 A. Yes.

12 Q. Did you prepare a budget in this case?

13 A. No.

14 Q. What is the basis of your opinion that the
15 sunroof had no effect on the strength of the roof
16 structure between the subject Escape and the test
17 Escape?

18 A. Well, first of all, the sunroof would be
19 forward some distance from where the crush is
20 actually occurring. And second of all, I don't think
21 that removing part of a structure is going to make it
22 stronger.

23 Q. Did you compare the distance between where
24 the sunroof is and where the crush occurred?

25 A. No.

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1 Q. Did you review design drawings of the
2 Escape's roof with or without a sunroof?

3 A. No.

4 Q. Did you review the orientation of where
5 structural components in the roof are of the Ford
6 Escape with or without a sunroof?

7 A. No.

8 Q. Did you review the effects that it has on
9 strength based on testing that had been performed?

10 A. No.

11 Q. Did you review any literature on whether
12 that sunroof would have an impact on the strength?

13 A. No.

14 Q. Did you perform any testing of the
15 differences between the strength of an Escape with
16 the sunroof versus without a sunroof?

17 A. No.

18 Q. Did you review any testing of the strength
19 of different component materials such as the glass or
20 the structures that make up the roof?

21 A. No.

22 MR. MASHMAN: Okay. I don't think I
23 have any more questions for you. I
24 appreciate your time.

25 MR. HILL: Thank you. No questions.

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1 THE VIDEOGRAPHER: The time 4:35 p.m.

2 This concludes the videotaped deposition.

3 We are off video record.

4 THE REPORTER: You said he's reading and
5 signing?

6 MR. HILL: I don't think we discussed
7 it, but I'm sure he wants to.

8 THE WITNESS: Yeah...

9 (Discussion ensued off the record.)

10 THE REPORTER: Did you want a copy of
11 his transcript?

12 MR. HILL: Yes. In fact, I need a rough
13 as fast as you can get it.

14 (Deposition concluded at 4:36 p.m.)

15 (Signature reserved.)

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1 CERTIFICATE
2
3 STATE OF GEORGIA:
4 COUNTY OF FULTON:
5
6
7 I hereby certify that the foregoing
8 transcript was taken down, as stated in the caption,
9 and the colloquies, questions, and answers were
10 reduced to typewriting under my direction; that the
11 transcript is a true and correct record of the
12 evidence given upon said proceeding.
13
14 I further certify that I am not a relative
15 or employee or attorney of any party, nor am I
16 financially interested in the outcome of this action.
17
18 Marsi Koehl
19
20 Marsi Koehl, CCR-B-2424
21
22
23
24
25

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1 DISCLOSURE
2

3 STATE OF GEORGIA:

4 COUNTY OF DEKALB:

5 Deposition of WESLEY D. GRIMES.

6 Pursuant to Article 8.B. of the Rules and
7 Regulations of the Board of Court Reporting of the
Judicial Counsel of Georgia, I make the following
disclosure:

8
9 I am a Georgia Certified Court Reporter
10 acting as an agent of Veritext Legal Solutions, who
was contacted by the offices of CANNELLA SNYDER, LLC,
to provide court reporting services for this
deposition. I will not be taking this deposition
under any contract that is prohibited by O.C.G.A.
15-14-37 (a) and (b).

12
13 Veritext Legal Solutions, has no contract to
provide reporting services with any party to the case,
any counsel in the case, or any reporter or reporting
agency from whom a referral might have been made to
report this deposition. Veritext Legal Solutions,
15 will charge its usual and customary rate to all
parties in the case, and a financial discount will not
be given to any party to this litigation.

21 Marsi Koehl, CCR-B-2424

Date: 6/5/24

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1 Richard Hill, Esquire

2 rhill@wwhgd.com

3 June 5, 2024

4 RE: Bryson, Santana And Joshua v. Rough Country, LLC

5 5/9/2024, Wesley Grimes (#6672275)

6 The above-referenced transcript is available for
7 review.

8 Within the applicable timeframe, the witness should
9 read the testimony to verify its accuracy. If there are
10 any changes, the witness should note those with the
11 reason, on the attached Errata Sheet.

12 The witness should sign the Acknowledgment of
13 Deponent and Errata and return to the deposing attorney.
14 Copies should be sent to all counsel, and to Veritext at
15 cs-southeast@veritext.com.

16 Return completed errata within 30 days from
17 receipt of testimony.

18 If the witness fails to do so within the time
19 allotted, the transcript may be used as if signed.

20

21

22 Yours,

23

Veritext Legal Solutions

24

25

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1 Bryson, Santana And Joshua v. Rough Country, LLC

2 Wesley Grimes (#6672275)

3 E R R A T A S H E E T

4 PAGE_____ LINE_____ CHANGE_____

5 _____

6 REASON_____

7 PAGE_____ LINE_____ CHANGE_____

8 _____

9 REASON_____

10 PAGE_____ LINE_____ CHANGE_____

11 _____

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14 _____

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17 _____

18 REASON_____

19 PAGE_____ LINE_____ CHANGE_____

20 _____

21 REASON_____

22 _____

23 _____

24 Wesley Grimes Date

25 _____

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1 Bryson, Santana And Joshua v. Rough Country, LLC

2 Wesley Grimes (#6672275)

3 ACKNOWLEDGEMENT OF DEPONENT

4 I, Wesley Grimes, do hereby declare that I
5 have read the foregoing transcript, I have made any
6 corrections, additions, or changes I deemed necessary as
7 noted above to be appended hereto, and that the same is
8 a true, correct and complete transcript of the testimony
9 given by me.

10

11

12

Wesley Grimes

Date

13

*If notary is required

14

SUBSCRIBED AND SWORN TO BEFORE ME THIS

15

_____ DAY OF _____, 20 ____.

16

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NOTARY PUBLIC

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FLORIDA RULES OF CIVIL PROCEDURE

Rule 1.310

(e) Witness Review. If the testimony is transcribed, the transcript shall be furnished to the witness for examination and shall be read to or by the witness unless the examination and reading are waived by the witness and by the parties. Any changes in form or substance that the witness wants to make shall be listed in writing by the officer with a statement of the reasons given by the witness for making the changes. The changes shall be attached to the transcript. It shall then be signed by the witness unless the parties waived the signing or the witness is ill, cannot be found, or refuses to sign. If the transcript is not signed by the witness within a reasonable time after it is furnished to the witness, the officer shall sign the transcript and state on the transcript the waiver, illness, absence of the witness, or refusal to sign with any reasons given therefor. The deposition may then be used as fully as though signed unless the court holds that the reasons given for the refusal to sign require rejection of

the deposition wholly or partly, on motion under rule 1.330(d)(4).

DISCLAIMER: THE FOREGOING CIVIL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE STATE RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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